Manitoba
Innovation, Energy and Mines

Innovation, Énergie et Mines
Manitoba

Annual Report
2011 - 2012

Rapport annuel
2011 - 2012

Manitoba

His Honour the Honourable Philip S. Lee, C.M., O.M.
Lieutenant Governor of Manitoba
Room 235, Legislative Building
Winnipeg, Manitoba
R3C 0V8

May it Please Your Honour:

I am pleased to present the Annual Report for the Department of Innovation, Energy and Mines for the fiscal year ending March 31, 2012.

Respectfully submitted,

Dave Chomiak
Minister

Son Honneur l'honorable Philip S. Lee, C.M., O.M.
Lieutenant-gouverneur du Manitoba
Palais législatif, bureau 235
Winnipeg (Manitoba) R3C 0V8

Monsieur le Lieutenant gouverneur,

J'ai le plaisir de présenter à Votre Honneur le rapport annuel du ministère des Innovation, Énergie et Mines pour l'exercice se terminant le 31 mars 2012.

Je vous prie d'agréer, Monsieur le Lieutenant-gouverneur, l'expression de mon profond respect.

Le ministre,

Document original signé par :

Dave Chomiak

Manitoba

Innovation, Energy and Mines

Deputy Minister
Room 349, Legislative Building, Winnipeg, MB, R3C 0V8
T 204-945-2771 **F** 204-945-2747
www.gov.mb.ca

Honourable Dave Chomiak
Minister of Innovation, Energy and Mines
Room 343, Legislative Building
Winnipeg MB R3C 0V8

Dear Minister Chomiak:

I have the honour of presenting the Annual Report for the Department of Innovation, Energy and Mines for the period April 1, 2011 to March 31, 2012.

The mission of the department is to help all Manitobans thrive by fostering innovation, enabling critical partnerships and networks, and continuously transforming service delivery.

The department has undertaken many activities in collaboration with our partners and stakeholders. I have profiled below, a few accomplishments that are a result of the activities:

- Manitoba is positioning itself as a leader as the electrification of transportation moves from research into the commercial world. In 2011 the Province released Manitoba's Electric Vehicle Road Map, signed several MOU's with electric vehicle manufacturers and partnered with Mitsubishi Heavy Industries, New Flyer Industries, and Red River College, in the development of an all electric battery powered transit bus.

- Manitoba's wind generating capacity grew with the expansion of the St. Leon wind farm. Algonquin Power added another 10 wind turbines to the project, bringing the generation capacity to 120 MW's, enough to power 40,000 homes.

- Manitoba remains a leader in the installation of geothermal heat pumps. As of 2011 approximately 11,000 heat pump units had been installed in Manitoba

- During 2011/12 the Manitoba Centres of Excellence Fund (MCEF) support of $720,000 leveraged a total of $2,813,379 in the federal funds from the federal Networks of Centres of Excellence (NCE) program. A total of thirteen centres at the University of Manitoba were supported including: Allergy, Genes and Environment Network; ArcticNet; Canadian Arthritis Network; Canadian Water Network; and the Automobile of the 21st Century.

- TRLabs is Canada's largest ICT research and innovation consortium with an important node of activity based in Winnipeg. In April 2011 the Government of Manitoba announced a five-year funding agreement with TRLabs worth $2.6 million.

- Business Transformation and Technology's primary focus is to establish an environment that will help modernize government. A renewed and sustainable ICT infrastructure is central to this mission and many of BTT's major projects and initiatives are directed at infrastructure renewal and consolidation. These include:

- BTT has completed the Desktop Extension Program with HP Canada. The program included a refresh of 14,000 desktop and laptop computers, and the introduction of Critical Services Recovery to enhance business continuity in the event of an interruption of primary services.

- On July 1, 2010, Manitoba entered into a 10 year contract with MTS Allstream for Wide Area Network (WAN) services. We are now in the implementation phase of the agreement. As of August 2012 over 66% of the migration is complete. The entire migration project is scheduled completion by October 2012.

- BTT has launched secure Managed File Transfer Services (MFT), a file transfer service that securely exchanges electronic files between people and applications in and outside of the Manitoba Government. MFT complements e-mail services by providing secure, robust, scalable, and sustainable large file transfer service available across the Manitoba Government.

- BTT's focus on modernizing government includes a strategy to rationalize, standardize, and integrate the government's diverse application portfolio of more than 500 applications through the Application Portfolio Management Initiative

- Business Transformation and Technology has taken the lead with government departments to help coordinate a continuous effort to further advance the online services that government offers to the residents of Manitoba. This included:

    - ManitobaAddressChange.ca – a new website where residents can simultaneously notify multiple organizations of change of address (which has had over 1,300 submissions since April).

    - Maintenance Enforcement Program – replacement of an old system which now allows for electronic collection and disbursements of maintenance payments.

    - AccessManitoba – Services to enable apprentices and their employers to interact with government online were introduced in June 2011. As of March 2012, 4517 orders for technical training courses were processed, of which 763 were processed online. In addition, 2,660 apprentice applications were processed, with 117 online applications. Previously, clients were only able to register in person, over the phone, or by mail.

- Far North Geomapping Initiative: the Manitoba Geological Survey continued to undertake geoscience activities in the Far North, supported in part by the Geological Survey of Canada (GSC) Geo-mapping for Energy and Minerals (GEM) program. The northern projects included bedrock and surficial mapping in the Snyder Lake region of northwestern Manitoba, surficial studies at Churchill and Phanerozoic studies in the Hudson Bay Basin.

- Targeted Geoscience Initiative: work by the Manitoba Geological Survey, partnered with the federal government, universities and the mining industry is providing new information about mineral deposits in a wide range of geological environments in Manitoba. These advances help established mining communities by identifying new targets for private industry exploration, potentially leading to new discoveries.

- Shallow Unconventional Shale Gas Project: a multi-year investigation of the shale gas potential of the Late Cretaceous shale strata of southwestern Manitoba is being conducted by the Manitoba Geological Survey, funded in part by Manitoba Hydro. The geochemical and mineralogical information that has been gathered for these rocks is important in providing a geoscientific knowledge base for further study and private sector exploration.

- The mining sector is experiencing a historic level of mineral production growth. The Mineral Resources Division has provided direct support to a number of successful exploration and development projects, including HudBay's Lalor and Reed Lake mining projects. Continuing indirect scientific support for these projects, and others in the development pipeline, will ensure the economic sustainability for northern and Aboriginal communities.

- In 2011 the Oil and Gas Industry broke all previous established records. Oil production for 2011 reached 41,097 barrels of oil per day for an annual total of 15 million barrels worth an estimated $1.37 billion and investment topped $1.23 billion. For fiscal year 2011/12 direct provincial revenue from royalties, taxes, fees, and mineral sales reached $48 million.

- The Orphan and Abandoned (O&A) Mine Site Program was introduced in 2009 with a dedicated budget to address the rehabilitation of O&A Mines sites. To date, $82 million has been spent and 18 High Hazard sites have been rehabilitated and the rehabilitation and work is underway on all remaining High Hazard Sites and High Risk Sites.

- Integrated Mining and Quarrying System (IMAQ's) which provides for client administration of Mineral Dispositions was implemented internally for both the Metal Mining and Quarrying areas. The eventual goal of the system is to allow for on line Map staking.

The department will continue with implementing innovative initiatives and strategic planning that will contribute to Manitoba's success.

Respectfully submitted,

Grant Doak
Deputy Minister of
Innovation, Energy and Mines

Manitoba
Innovation, Énergie et Mines

Bureau du sous-ministre
Palais législatif, bureau 349, Winnipeg (Manitoba) R3C 0V8
Tél. : 204 945-2771 **Téléc. :** 204 945-2747
www.gov.mb.ca

Monsieur Dave Chomiak
Ministre de l'Innovation, de l'Énergie et des Mines
Palais législatif, bureau 343
Winnipeg (Manitoba) R3C 0V8

Monsieur le Ministre,

J'ai l'honneur de vous présenter le rapport annuel du ministère de l'Innovation, de l'Énergie et des Mines pour la période du 1er avril 2011 au 31 mars 2012.

La mission du ministère consiste à aider la population manitobaine à prospérer en encourageant l'innovation, en permettant la création de partenariats et de réseaux essentiels et en transformant continuellement la prestation de services.

Le ministère a mené de nombreuses activités en collaboration avec ses partenaires et les groupes intéressés. Je mentionne ci-dessous quelques réalisations qui résultent de ces activités.

- Le Manitoba est en train de devenir un chef de file dans le domaine de l'électrification des transports. Le stade de la recherche étant terminé, on passe maintenant à la commercialisation. En 2011, la Province a publié la feuille de route des véhicules électriques du Manitoba (Manitoba's Electric Vehicle Road Map), a signé plusieurs protocoles d'entente avec des constructeurs de véhicules électriques et a formé des partenariats avec Mitsubishi Heavy Industries, New Flyer Industries et le Collège Red River pour la conception d'un autobus urbain électrique à batterie.

- Au chapitre de la production d'énergie éolienne, la capacité du Manitoba a augmenté grâce à l'agrandissement du parc éolien de Saint-Léon. L'ajout de 10 éoliennes par Algonquin Power porte la capacité de production à 120 mégawatts, soit une quantité suffisante pour alimenter 40 000 foyers en électricité.

- Le Manitoba demeure un chef de file dans le domaine de l'installation de thermopompes géothermiques. En 2011, on a installé quelque 11 000 thermopompes dans la province.

- Au cours de l'exercice 2011-2012, l'aide financière de 720 000 $ provenant du Fonds pour les centres d'excellence du Manitoba a permis d'obtenir du gouvernement fédéral un total de 2 813 379 $ dans le cadre du programme des Réseaux de centres d'excellence. Des fonds ont été accordés à 13 centres à l'Université du Manitoba, dont les suivants : Réseau des allergies, des gènes et de l'environnement, ArcticNet, Réseau canadien de l'arthrite, Réseau canadien de l'eau et L'automobile du XXIe siècle.

- TRLabs est le plus important consortium de recherche et d'innovation en technologies de l'information et des communications au Canada, et une bonne partie de ses activités sont concentrées à Winnipeg. En avril 2011, le gouvernement du Manitoba a annoncé qu'il avait conclu avec TRLabs une entente quinquennale de financement d'une valeur de 2,6 millions de dollars.

- L'objectif principal de Technologie et transformation opérationnelle est de créer un environnement qui aidera le gouvernement à se moderniser. Une infrastructure des technologies de l'information et des communications renouvelée et durable est essentielle à l'atteinte de cet objectif. C'est pourquoi bon nombre des projets et des initiatives d'envergure de Technologie et transformation opérationnelle visent à renouveler et à consolider l'infrastructure. En voici des exemples :

- Technologie et transformation opérationnelle a mené à bien le Desktop Extension Program, ou programme de renouvellement informatique, en collaboration avec HP Canada. Le programme visait notamment à renouveler 14 000 ordinateurs de bureau et ordinateurs portatifs, et à mettre en place des mesures de rétablissement des services essentiels afin d'améliorer la continuité des activités en cas d'interruption des services de base.

- Le 1er juillet 2010, le Manitoba a signé un contrat de 10 ans avec MTS Allstream pour des services de réseau étendu. Nous en sommes maintenant à l'étape de mise en œuvre du contrat. En août 2012, plus de 66 % de la migration avait été effectuée. Le projet de migration devrait être terminé d'ici octobre 2012.

- Technologie et transformation opérationnelle a instauré la gestion de transfert de fichiers, un service sécurisé qui permet l'échange de fichiers électroniques entre des personnes ou des applications tant à l'intérieur qu'à l'extérieur du gouvernement du Manitoba. Complément du service de courriel, le nouveau service offre un moyen sécurisé, fiable, extensible et durable de transfert de fichiers de grande taille dans l'ensemble de la fonction publique du Manitoba.

- Afin de moderniser le gouvernement, Technologie et transformation opérationnelle met en œuvre une stratégie visant à rationaliser, à normaliser et à intégrer le portefeuille d'applications diversifié du gouvernement, qui en compte plus de 500, dans le cadre de l'initiative de gestion du portefeuille d'applications.

- En outre, Technologie et transformation opérationnelle a pris l'initiative d'aider à coordonner les efforts soutenus déployés par les ministères dans le but d'améliorer davantage les services en ligne que le gouvernement offre aux gens du Manitoba. Voici des exemples de ces efforts :

    - ManitobaAddressChange.ca – Il s'agit d'un nouveau site Web qui permet aux gens d'informer simultanément de multiples organisations de leur changement d'adresse (il y a eu plus de 1 300 demandes depuis avril).

    - Programme d'exécution des ordonnances alimentaires – On a remplacé l'ancien système, et il est désormais possible d'effectuer le recouvrement et le versement des pensions alimentaires par voie électronique.

    - Accès Manitoba – En juin 2011, on a instauré des services visant à permettre aux apprentis et à leurs employeurs d'avoir des interactions en ligne avec le gouvernement. En mars 2012, 4 517 demandes de cours de formation technique avaient été traitées, dont 763 en ligne. En outre, on avait traité 2 660 demandes d'apprentis, dont 117 demandes en ligne. Auparavant, les clients devaient s'inscrire en personne, au téléphone ou par la poste.

- Initiative de géocartographie du Grand Nord : Levés géologiques du Manitoba continue de réaliser dans le Grand Nord des activités géoscientifiques financées en partie par le programme de géocartographie de l'énergie et des minéraux de la Commission géologique du Canada. Les projets réalisés dans le nord comprennent la cartographie du substratum rocheux et des matériaux superficiels dans la région de Snyder Lake située dans le nord-ouest du Manitoba, des études superficielles à Churchill et des études sur les roches du Phanérozoïque dans le bassin de la baie d'Hudson.

- Initiative géoscientifique ciblée : Les travaux réalisés par Levés géologiques du Manitoba, en partenariat avec le gouvernement fédéral, les universités et l'industrie minière, fournissent de nouvelles données sur les gisements minéraux dans tout un éventail de milieux géologiques au Manitoba. Ces données sont utiles aux collectivités minières établies, car elles répertorient de nouvelles cibles d'exploration pour le secteur privé et pourraient mener à de nouvelles découvertes.

- Projet concernant les gaz de schiste non classiques peu profonds : Levés géologiques du Manitoba réalise une étude pluriannuelle sur le potentiel en gaz de schiste de la strate de schiste du Crétacé tardif dans le sud-ouest du Manitoba. Cette étude est financée en partie par Manitoba Hydro. Les données géochimiques et minéralogiques recueillies au sujet de ce type de roches sont importantes pour la création d'une base de connaissances géoscientifiques qui permettra de mener d'autres études et de poursuivre les activités d'exploration dans le secteur privé.

- L'industrie minière connaît une croissance sans précédent au chapitre de la production minérale. La Division des ressources minières a fourni un soutien direct pour un certain nombre de projets d'exploration et de mise en valeur qui ont été couronnés de succès, notamment les projets miniers de la société HudBay dans les régions de Lalor et de Reed Lake. En continuant d'apporter un soutien scientifique indirect pour ce type de projets, ainsi que pour d'autres projets qui sont en train d'être élaborés, on assurera la viabilité économique des collectivités du Nord et des collectivités autochtones.

- En 2011, l'industrie pétrolière et gazière a battu tous les records antérieurs. La production pétrolière a atteint 41 097 barils par jour, pour un total annuel de 15 millions de barils dont la valeur est estimée à 1,37 milliard de dollars, et les investissements ont dépassé 1,23 $ milliard de dollars. Pour l'exercice 2011-2012, les recettes provinciales directes tirées des redevances, des taxes, des droits et des ventes de minéraux ont atteint 48 millions de dollars.

- Le programme de restauration des mines orphelines/abandonnées du Manitoba a été mis en œuvre en 2009 et dispose d'un budget spécial. Jusqu'ici, 82 millions de dollars ont été dépensés et 18 sites d'exploitation minière jugés très dangereux ont été remis en état. De plus, on procède actuellement à la remise en état de tous les autres sites présentant un danger ou un risque important.

- Le Système intégré du secteur des mines et des carrières (iMaQs) a été mis en œuvre à l'interne afin de permettre aux clients des secteurs de l'extraction des métaux et de l'exploitation des carrières d'administrer des aliénations minières. Le but ultime du système est de permettre d'effectuer en ligne le jalonnement sur carte.

Le ministère continuera de promouvoir la planification stratégique et les initiatives innovatrices qui contribueront au succès du Manitoba.

Je vous prie d'agréer, Monsieur le Ministre, l'assurance de ma haute considération.

Le sous-ministre de l'Innovation, de l'Énergie et des Mines,

Grant Doak

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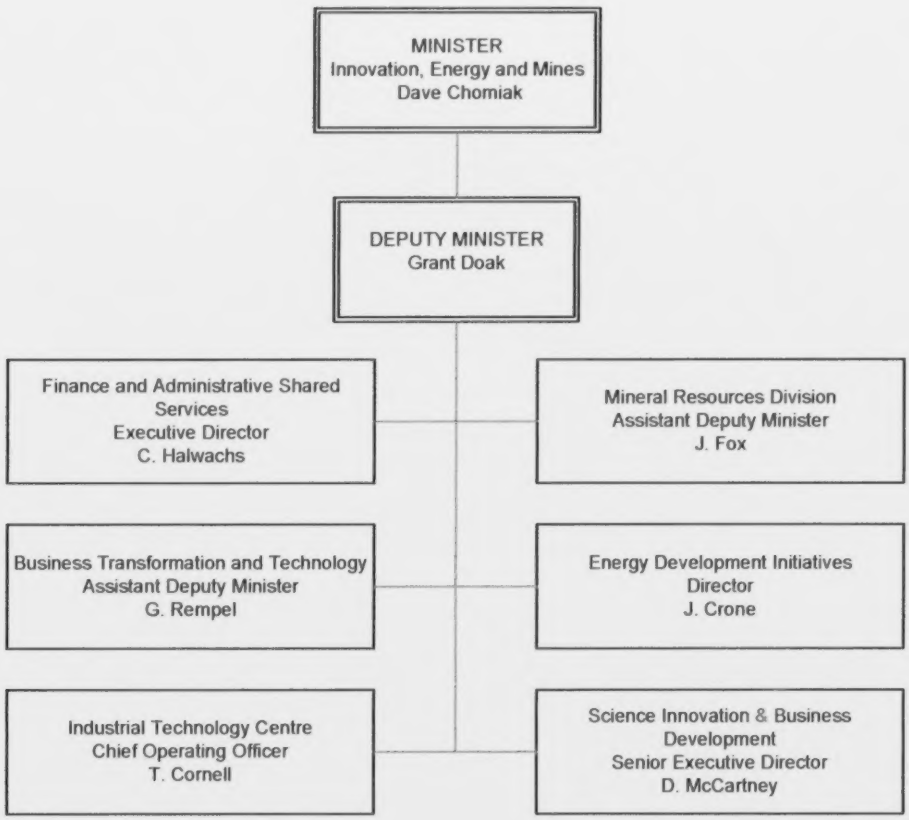
Schedule 1

INNOVATION, ENERGY AND MINES
ORGANIZATION CHART
As of March 31, 2012



PREFACE

REPORT STRUCTURE

The Annual Report is organized in accordance with the department's appropriation structure and the Main Estimates of Expenditure for the Province. The Report includes financial performance and variance information at the main and sub-appropriation levels and information relating to the department's objectives and results at the sub-appropriation level. The Report also includes information about associated agencies, business assistance, revenue and expenditures, a five-year comparison of expenditures and a staffing analysis.

STATUTORY RESPONSIBILITIES

The Minister of Innovation, Energy and Mines is responsible for the following:

The Biofuels Act	B 40
The Economic Innovation and Technology Council Act	E 7
The Energy Act	E 112
The Gaming Control Act	G 5
The Gaming Control Local Option (VLT) Act	G 7
The Gas Pipe Line Act	G 50
The Gas Allocation Act	G 52
The Greater Winnipeg Gas Distribution Act (S.M. 1988-89, c. 40)	-
The Manitoba Health Research Council Act	H 28
The Manitoba Hydro Act	H 190
The Manitoba Natural Resources Development Act	N 33
The Income Tax Act (section 10.5)	I 10
The Mining and Metallurgy Compensation Act	M 190
The Oil and Gas Act	O 34
The Oil and Gas Production Tax Act	O 37
The Property Tax and Insulation Assistance Act [Part V, and section 1 and Part VI as they relate to subjects covered under Part V]	P 143
The Surface Rights Act	S 235
The Winter Heating Cost Control Act	W 165

As per Order-In-Council 19/2012

SUSTAINABLE DEVELOPMENT

The department is committed to the Principles and Guidelines set out in The Sustainable Development Act and works to incorporate them in department activities, programs and business practices.

The Principles and Guidelines of Sustainable Development are:

1. Integration of Environmental and Economic Decisions
2. Stewardship
3. Shared Responsibility and Understanding
4. Prevention
5. Conservation and Enhancement
6. Rehabilitation and Reclamation
7. Global Responsibility
8. Efficient uses of Resources
9. Public Participation
10. Access to Information
11. Integrated Decision Making and Planning
12. Waste Minimization and Substitution
13. Research and Innovation.

The Sustainable Development Procurement Goals:

1. Education, Training and Awareness
2. Pollution Prevention and Human Health Protection
3. Reduction of Fossil Fuel Emissions
4. Resource Conservation
5. Community Economic Development

ORGANIZATION

The department's 2011/2012 organization structure is illustrated in the Organization Chart, page i. The roles, responsibilities and staffing are outlined in the following information.

ROLE AND RESPONSIBILITIES

MINISTER

HONOURABLE DAVE CHOMIAK

DEPUTY MINISTER

GRANT DOAK

VISION STATEMENT

Manitoba is the place where innovation flourishes, ideas grow and people prosper.

ROLE AND MISSION

The department will build the capacity for Manitobans to prosper through innovation, by

- creating strategic partnerships;
- encouraging investment;
- enabling the right infrastructure, and access to it;
- promoting awareness and knowledge;
- championing critical policy development; and
- facilitating development of the province's energy and mineral resource and knowledge-based economy.

FOCUS

The Department will:

- focus provincial innovation activities;
- assist in the growth and success of our science, research and technology assets;
- foster a positive environment to enable economic development opportunities related to energy initiatives;
- strengthen, develop, grow and attract knowledge-based industries;
- focus government's business transformation and information technology requirements;
- build community based partnerships through connectivity;
- strategically develop Manitoba's energy resources, in co-operation with public and private sectors;
- support innovation in communities and schools;
- link government's own IT activities with innovation and economic development;
- provide geoscientific information vital to address land-use and environmental issues facing Manitobans; and
- provide for and encourage the environmentally friendly sustainable economic development of the province's mineral and petroleum resources.

The Department will work collaboratively with business, individuals, government departments and communities to:

- strengthen their capacity to innovate;
- enhance the competencies they need to prosper;
- raise their profile locally, nationally and internationally; and
- foster an environment that supports sustainable economic growth.

To achieve its mission, the department is organized in five divisions:

ADMINISTRATION AND FINANCE DIVISION provides for the executive management, planning and control of departmental policies and programs. Administrative support is provided through the Department of Entrepreneurship, Training and Trade in the areas of finance and administration and management information systems.

ENERGY DEVELOPMENT INITIATIVES DIVISION develops and implements energy development initiatives and economic development strategies involving hydro-electric resources and alternate energy development opportunities. This includes developing, monitoring and co-ordinating the implementation of energy-initiatives and related provincial programs.

SCIENCE, INNOVATION AND BUSINESS DEVELOPMENT DIVISION (SIBD) functions as the government's primary focus for business development services to industry and communities in the areas of life sciences, information and communication technologies, and digital media, in support of economic and employment growth. Develops, analyzes and communicates policies related to innovation, research and development, technology and telecommunications. SIBD oversees the implementation of the Manitoba Research and Innovation Fund and the Manitoba Centres of Excellence Fund, provides a co-coordinating function for research, innovation, science and technology initiatives in government. Manitoba Health Research Council: Promotes and assists basic, clinical and applied research in the health sciences in Manitoba through grants and awards programs. Industrial Technology Centre: Facilitates economic development in Manitoba through the provision of industrial technology services. Manitoba Education, Research and Learning Information Networks: Facilitates and co-ordinates the delivery of technology services to the education community across Manitoba.

BUSINESS TRANSFORMATION AND TECHNOLOGY DIVISION provides leadership for service delivery activities, operational transformation activities and the SAP implementation across the Government of Manitoba ensuring the best possible use of the province's existing information and communications technology resources, systems, platforms, applications, and skills, while finding new ways to meet service challenges, plan for future needs, and respond to economic opportunities. Legislative Building Information Systems: Provides a secure technological environment with highly responsive support services and reliable systems that address business requirements of diverse users in the Legislative Building

THE MINERAL RESOURCES DIVISION promotes wise land management and environmentally sustainable economic development in the province based on Manitoba's mineral and petroleum resources; provides authoritative documentation of the province's mineral and petroleum endowment and development potential; delivers mineral incentive programs; administration of legislation governing the disposition of mineral and petroleum rights, exploration, development and production of Manitoba's mineral and petroleum resources and, the rehabilitation of mines, quarries and abandoned petroleum sites; provides for the resolution of disputes between surface and/or mineral rights holders with respect to accessing minerals including oil and gas.

ADMINISTRATION AND FINANCE

The Administration and Finance Division comprises the Executive Support Offices and the shared Financial and Administrative Services section of Entrepreneurship, Training and Trade.

MINISTER'S SALARY AND EXECUTIVE SUPPORT

Executive Support includes the Offices of the Minister and Deputy Minister. The Minister provides leadership and direction to ensure the goals and objectives of the department are accomplished. The Office of the Deputy Minister provides the Minister with advice and information regarding issues and matters of concern to the department. Executive Support is responsible for providing the department with policy direction and the overall planning and co-ordination of departmental activities.

18-1(a) Minister's Salary

Expenditures by Sub-Appropriation	Actual 2011/12 $	Estimate 2011/12 FTE	Estimate 2011/12 $	Variance Over (Under)	Expl. No.
Minister's Salary	33	1.00	37	(4)	
Total Expenditures	**33**	**1.00**	**37**	**(4)**	

18-1(b) Executive Support

Expenditures by Sub-Appropriation	Actual 2011/12 $	Estimate 2011/12 FTE	Estimate 2011/12 $	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	476	6.00	492	(16)	
Total Other Expenditures	68		73	(5)	
Total Expenditures	**544**	**6.00**	**565**	**(21)**	

ADMINISTRATION AND FINANCE

FINANCIAL AND ADMINISTRATIVE SERVICES

Financial and Administrative Services is comprised of two primary components: Finance and Administration and Computer Services. The branch provides shared Financial, Administrative and Computer Services to the departments of Entrepreneurship, Training and Trade and Innovation, Energy and Mines.

Human Resource Management
Effective March 1, 2010 the Government of Manitoba realigned responsibility for the delivery of human resource services and the associated staff to the Civil Service Commission, with the goal to improve service delivery to all departments and employees. For additional information on this realignment, see the Civil Service Commission's 2010/11 Annual Report

OBJECTIVES

The objectives of Financial and Administrative Services are to: provide leadership, program direction and operational coordination to support department activities; to provide high quality, timely and customer responsive administrative, financial management and information technology, develop and administer appropriate administrative and financial standards, policies and procedures; and to develop and maintain appropriate reporting systems to provide timely and accurate decision-making information to senior management in the departments and in central agencies through a centralized support service.

ACTIVITIES/RESULTS

Finance and Administration supports the mission and goals of the Department by:

- Processing payments and receipts;
- Providing computer business application development and support services;
- Administering and coordinating the Department's parking and pool vehicle programs;
- Providing for physical accommodations;
- Providing advisory and specialized accounting and financial management services to departmental personnel and related entities;
- Coordinating French Language services;
- Coordinating the departmental administration of the *Freedom of Information and Protection of Privacy Act* and *The Public Sector Disclosure (Whistleblower Protection) Act*;
- Managing the department's records management program; and
- Providing timely, accurate and relevant information to departmental and central agency decision-makers including budgetary, cash flow and year end reporting.

18-1(c) Financial and Administrative Services

Expenditures by Sub-Appropriation	Actual 2011/12 $	Estimate 2011/12 FTE	Estimate 2011/12 $	Variance Over (Under)	Expl. No.
Total Other Expenditures	148		150	(2)	
Total Expenditures	**148**		**150**	**(2)**	

ENERGY DEVELOPMENT INITIATIVES

The Energy Division's primary responsibilities are to facilitate clean, renewable energy development, develop broad provincial energy policy for both supply and demand side energy activities in Manitoba, and seek economic development opportunities related to energy development and energy efficiency activities.

Manitoba has become a "powerhouse" in terms of clean energy, utilizing renewable resources such water, wind, solar and biomass to produce electricity to power our homes and industry, to fuel vehicles and to heat our houses and buildings. Renewable energy sources like hydroelectricity, wind energy, geothermal, biofuels and biomass cubes and pellets are commercial today, while Manitoba continues to gain experience in the clean energy technologies of tomorrow including electric vehicles and associated infrastructure, fuel cells, advanced energy storage devices, smart grid concepts and devices, advanced low temperature heat pumps and second generation biofuels. Manitoba is also recognized as a North American leader in terms of energy efficiency activities for both electricity and natural gas.

The activities of the division contribute to major capital investments in Manitoba, help Manitoba communities realize new economic opportunities, help reduce harmful greenhouse gas emissions, and contribute to Manitoba becoming more energy self-sufficient.

OBJECTIVES

The primary objectives of the Energy Division include: developing and implementing provincial strategies and programs and providing business development support that facilitates the development of renewable energy sources; developing, analyzing and implementing provincial government's energy policies; providing oversight of existing programs and developing new programs to maximize energy efficiency activities in Manitoba; monitor and analyze global energy trends and promote Manitoba's clean energy trade opportunities in the US and Canada.

ACTIVITIES/RESULTS

The following provides a summary of activities:

Hydro-Electric Developments: Highlights of major hydroelectric developments in Manitoba include the ongoing construction and near completion of Manitoba Hydro's 200 MW Wuskwatim dam and the conclusion of new Manitoba Hydro power sales agreements with Minnesota Power (250-megawatt (MW) sale) and Wisconsin Public Service (100 MW) valued in total at an estimated $4 billion. These sales will require new hydroelectric generating capacity in Manitoba, triggering the development of the 695-MW Keeyask Generating Station located on the lower Nelson River 175 km northeast of Thompson in the Split Lake Resource Management Area.

The Energy Division continued to participate in the inter-departmental Major Hydro Projects Working Group tasked with ensuring major hydroelectric development related permitting processes are coordinated and streamlined. The division also participated on the steering committee for Crown Consultations with First Nations and Metis Communities related to the proposed Keeyask infrastructure project.

The Energy Division continued to help profile Manitoba's hydroelectric resources as a clean renewable electricity source for potential power sales into the US and Canada. Staff participated in US/Canada Clean Energy Dialogue meetings promoting hydroelectricity as a suitable clean energy source to help meet US state renewable energy portfolio standards. Staff provided strategic advice and briefing material to help senior government officials, ministers and the Premier advance discussions regarding renewable hydroelectricity at events like the Western Governors Association, Council of Energy Ministers, Midwest Legislators Forum, Western Premiers meetings, Council of Federation, Saskatchewan/Manitoba energy discussions, etc.

Business Development: Preliminary work was accomplished toward establishing a Memorandum of Understanding with electrical components manufacturer Crompton Greaves Power Systems Canada focusing on energy efficiency in transformers and other electrical operations, and engagement with Mitsubishi Heavy Industries (MHI) of Japan progressed congruent with the Memorandum of Understating signed in December 2010 covering eight major areas for collaboration on renewable energy.

Wind Power: Manitoba currently has 2 world class wind farms supplying power to domestic and as well as export customers. Pattern Energy Group commissioned the St. Joseph Windfarm at the beginning of 2011. The project has 60, Siemens turbines, each with a nameplate capacity of 2.3 MW. The 138 MW wind farm generates enough power to serve the needs of 50,000 homes.

The 120 MW St. Leon wind farm owned by Algonquin Power and Utilities Corporation and commissioned in 2006 expanded by adding 10 turbines in the summer of 2011. St. Leon now has a total of 73 Vestas 1.65 MW turbines supplying the energy needs of over 40,000 homes. With the expansion of the St Leon Wind Farm, Manitoba has over 258 MW of installed wind capacity.

The Department continues to provide support to Manitoba communities, First Nations and wind energy companies interested in developing or attracting wind energy projects.

Geothermal Heat Pumps: Manitoba remains committed to being a leader in the installation of geothermal heat pumps. As of 2011 approximately 11,000 geothermal heat pump units had been installed in Manitoba. This represents approximately 10% of the total installations across Canada while Manitoba represented 3.5% of Canada's population at that time.

Manitoba is showing provincial leadership in a shift towards heating and cooling buildings with renewable geothermal heat pump energy, while reducing the use of imported natural gas. Support for renewable geothermal energy was demonstrated in 2011 through:

- An expansion of tax credit incentives from 10 percent to 15 percent for all buildings installing eligible geothermal heat pump systems was implemented. This financial support is available to homeowners, commercial building owners and for district geothermal systems where several buildings are served by a common geothermal heat pump system.
- Grants for geothermal installations in homes were increased from $1000 to $2600 and eligible home installations were expanded to include both existing and new homes in natural gas serviced areas. .[1]
- The Winnipeg icon Forks Market completed its geothermal education kiosk. This facility serves as an education centre, as well as a commercial geothermal demonstration centre, at this popular public market and tourist destination. With funding support from Manitoba Innovation, Energy and Mines, and the Forks Renewal Corporation, a geothermal education kiosk was established at The Forks Market.
- The Manitoba green energy equipment tax credit supports installers that are certified by the Manitoba Geothermal Energy Alliance (MGEA).
- Manitoba's first district geothermal system that connects an ice arena, a fire hall and a new regional community centre was completed at Île-des-Chênes in 2011. All buildings are heated and cooled by a common geothermal system that delivers highly efficient green heat where the community centre is anticipated to use 60% less energy, and energy costs for the arena are expected to be reduced by 40%. A geothermal grant was provided in 2011 under the Manitoba Geothermal Energy Incentive Program. Subsequently this district geothermal energy system was awarded a national energy award by the Federation of Canadian Municipalities.

Renewable geothermal energy reduces provincial reliance on imported natural gas, reduces greenhouse gas emissions in Manitoba and assists Manitobans throughout the province in adopting renewable geothermal energy to heat and cool their homes and buildings.

[1] http://www.manitoba.ca/iem/energy/geothermal/incentives.html

Low Temperature Air-Source Heat Pumps: The Energy Division concluded a field study of air-source heat pumps that were claimed by the manufacturer to heat homes successfully at low ambient temperatures, where no ground loop was required as is the situation with a geothermal heat pump. The study found that the fundamental technical design of the low temperature air-source heat pump technology was sound; the technology was able to meet manufacturer's claims regarding low-temperature operation; however the study also demonstrated opportunities for further product development.

Biodiesel: Energy Division staff completed amendments to the Biodiesel in Diesel Fuel Mandate Regulation under The Biofuels Act to include exemptions for remote northern communities and to extend the initial compliance period for fuel suppliers. Diesel fuel suppliers also reported that over 47 million litres of biodiesel was blended into diesel fuel sold in Manitoba in 2010 and 2011. The biodiesel mandate resulted in an estimated 56,000 tonnes of greenhouse gas emission reductions in Manitoba for 2011.

Ethanol: In order to develop additional ethanol production capacity, Energy Division staff worked with proponents of cellulosic ethanol which utilize agricultural waste such as wheat straw as a feedstock. Manitoba's fuel suppliers currently provide a regular gasoline blend of 10% ethanol and Husky Energy's Minnedosa ethanol plant continues to operate at capacity to supply this market. The ethanol mandate resulted in an estimated 340,000 tonnes of greenhouse gas emission reductions in Manitoba for 2011.

Hydrogen: The Energy Division continued to track developments on hydrogen.

Electricity Reliability: In June of 2009, the Government passed the Manitoba Hydro Amendment and Public Utilities Board Amendment Act (Electrical Reliability). This Act effectively provides the statutory authority to regulate electrical reliability standards in the Province of Manitoba. The Energy Division is developing regulations under the Act that will make standards mandatory and designate a compliance body to monitor compliance with reliability standards.

Energy Efficiency: The Province of Manitoba's Lower Income Residential Efficiency Program continued to build on a successful track record of retrofitting homes to reduce energy and water consumption, lower utility costs, and help revitalize neighbourhoods. Support provided to community-based organizations in Winnipeg (BUILD) and Brandon (BEEP) enabled the retrofit of approximately 450 Manitoba Housing units in FY 2011/12. Numerous trainees benefited from participation in the skills-training portion of the retrofit programs, helping position them to overcome challenges related to finding and retaining meaningful employment. Since inception, this initiative has leveraged over $700,000 in federal funding from Natural Resources Canada's ecoENERGY program for reinvestment into additional efficiency retrofits. Key partners on these programs are Entrepreneurship, Training and Trade (ETT), Manitoba Hydro, Housing and Community Development.

As of March 31, 2012, the BUILD and BEEP programs have completed approximately 1,800 home energy retrofits, 6,453 home water retrofits, and engaged more than 150 trainees. Targeting the public housing sector, BUILD and BEEP are working successfully with Manitoba Housing and are currently scheduled to complete an additional 450 single family unit retrofits in FY 2012/13.

Plug-in Hybrid Electric Vehicles (PHEVs): The Energy Division concluded project management of the Manitoba PHEV Demonstration. The formal end demonstration was during the Fall of 2011. This project involved a total of ten Toyota Prius vehicles converted to PHEV using technology from A123Systems Inc., and operated for a period of three years within public-sector fleets in the vicinity of Winnipeg. A Third Year Operational Report and an overall Summary Final Report of the demonstration were completed, although not publicly released. The partnership demonstration of Toyota's pre-commercial, factory-built Prius Plug-in Hybrid Vehicle (Prius PHV), also involving Toyota Canada, Manitoba Hydro and the University of Manitoba was concluded as well. The Division was the last user of the vehicle in rotation during the summer of 2011 and formally handed the vehicle back to Toyota. In September 2011, a presentation on the results of the Manitoba PHEV Demonstration was made to the EV2011 Conference in Toronto, Ontario by Division staff. While at the same conference, Division staff also made a presentation to the Toyota-Partners Group meeting, involving approximately ten organizations nationally who participated with Toyota Canada in testing.

Electric Vehicles: The Energy Division also was responsible for conducting extensive background work on all-electric vehicles for Manitoba. . In April, 2011 Manitoba's Electric Vehicle Road Map, developed earlier by the Division, was publicly released by the Minister. One immediate measure under the Road Map was the creation of an Electric Vehicle Advisory Committee (EVAC) with a mandate to provide recommendations to government on how to accelerate the adoption of electric vehicles. The EVAC was subsequently constituted with the Energy Division both acting as the chair and providing secretariat support. Work proceeded through 2011, and a final report of the EVAC, including recommendations, was developed and completed.

In April, 2011 Manitoba signed a memorandum of understanding (MOU) on electric vehicles with Mitsubishi Motor Sales of Canada. The Division had developed the MOU earlier. The Division also signed a Research Test Agreement with Mitsubishi Motor Sales of Canada and received two European-version all-electric Mitsubishi iMiEVs. These vehicles were primarily driven by staff from the Division for evaluation, but also by senior staff, including Ministers. Energy Division staff arranged for the two iMiEVs to be outfitted with OTTO-Link data loggers from Manitoba-based Persentech, as well as IPLC PM2 Meters from Manitoba-based Vantera Inc.

All-Electric Transit Bus Development and Demonstration: In April 2011, the Premier announced a major collaborative project toward the development and demonstration of the all-electric, battery-based transit bus. This $3 million, three-year project is a partnership among the Government of Manitoba, Mitsubishi Heavy Industries (MHI), Manitoba Hydro, New Flyer Industries and Red River College. This represents the first concrete activity under the MOU signed previously in December 2010 with MHI regarding Renewable Energy Development. The Energy Division provided overall coordination of the project, including the development of a detailed project agreement covering technical responsibilities and business commitments and arrangements for all parties. This is a highly ambitious project that is literally "game-changing" for the transit industry and is particularly critical for maintaining Manitoba's leadership in this important manufacturing area. The intent of the project is to complete development within one year, followed by two further years of demonstration.

Biomass for Heat: The Energy Division continued to work closely with department of Manitoba Agriculture, Food and Rural Initiatives on biomass fuel for heating applications. Energy staff primarily provided business support in discussions with a variety of interested biomass processors and biomass technology developers, with individual industries in continuing to explore the use of biomass to displace fossil fuels, and in discussions on possible appropriate incentive options for biomass fuels.

Midwestern Energy Security and Climate Stewardship: The Province of Manitoba along with several states across the Midwestern US signed an agreement to pursue new initiatives aimed at reducing carbon emissions and promoting clean energy production and use. Manitoba's involvement in this agreement included working groups on renewable energy, energy efficiency and a cap and trade mechanism for greenhouse gas emission reductions.

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18-2(a) Energy Development Initiatives

Expenditures by Sub-Appropriation	Actual 2011/12 $	Estimate 2011/12 FTE	Estimate 2011/12 $	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	854	10.00	1,005	(151)	
Total Other Expenditures	2,172		1,450	722	*1*
Total Expenditures	**3,026**	**10.00**	**3,725**	**571**	

1. Electric Bus Development and Demonstration Project costs.

SCIENCE, INNOVATION AND BUSINESS DEVELOPMENT

SCIENCE, INNOVATION AND BUSINESS DEVELOPMENT

OBJECTIVES

The main focus of Science, Innovation and Business Development (SIBD) is to provide Manitoba with a comprehensive, integrated and coordinated approach to innovation, research and technology initiatives including:

- research, innovation and technology policy development and coordination;
- coordinating investments to support research and innovation in Manitoba;
- knowledge based industry development and growth;
- building Manitoba's life sciences, ICT and digital media presence;
- smart community development; and
- extending broadband access across Manitoba.

SIBD's mission is *to promote and enhance a climate of research, innovation and technology development that spurs responsible economic development for the benefit of all Manitobans.* Its objectives are to:

- develop public policy initiatives in support of research, innovation and technology development;
- develop a provincial innovation infrastructure;
- build and strengthen the research and innovation capacity within the province;
- build community capacity for sustained economic development in the new economy;
- build the capacity for new company formation, attraction and growth; and
- coordinate the implementation of public policy initiatives in the areas of research, information technologies, and investments.

PROGRAM AREAS

Research and Innovation Policy

The Research and Innovation Policy Branch of SIBD is responsible for the development, analysis and communication of policies related to research, innovation, science and technology. The Branch oversees the implementation of the Manitoba Research and Innovation Fund, Health Research Initiative, Manitoba Centres of Excellence Fund, Manitoba Network for Science and Technology (MindSet) and funding provided to the Manitoba Health Research Council. The Branch also provides a key co-ordinating function across government for research, innovation, science and technology initiatives.

Business Development

The Business Development Branch of SIBD works with companies and industry supporting organizations in the knowledge-based sectors of Information and Communications Technologies (ICT), Life Sciences and Digital Media. Working with a variety of stakeholders, the Business Development Branch support activities aimed at creating an environment that fosters business development in all three of these knowledge based sectors. The Branch also supports the business development needs of existing Manitoba businesses as well as companies considering investment in Manitoba.

Broadband Initiative

The Broadband Initiative works with the private sector and community based organizations to provide high-speed connectivity and Broadband capacity to areas of the province where such services do not currently exist.

ACTIVITIES/RESULTS

RESEARCH AND INNOVATION POLICY

Manitoba Research and Innovation Fund (MRIF)

With a core allocation of $11.3 million in 2011/12, the Manitoba Research and Innovation Fund (MRIF) is the primary vehicle for funding provincial research and innovation in the Department of Innovation, Energy and Mines (IEM). Established in 2003/04, the MRIF has three primary support elements: the Research Fund; the Health Research Initiative (HRI); and the Innovation Fund.

The objectives of the MRIF are:

- to increase the capacity of Manitoba's universities, colleges, hospitals and other not-for-profit institutions to carry out important world-class scientific research and technology development through the funding of research projects identified as a priority by the Province;
- to increase Manitoba's capacity for innovation through the support of science and technology awareness, technology commercialization and other strategic initiatives;
- to enhance job creation, economic growth, productivity and competitiveness;
- to encourage collaboration between and within the private sector and research institutions;
- to enhance Manitoba research institutions' abilities to attract and keep world-class researchers and skilled technicians, and to conduct state-of-the-art research; and
- to develop improvements for Manitobans' health, environment, and quality of life.

Research Fund

This program element had a $9.3 million allocation for 2011/12. Its focus is on expanding Manitoba's research capacity, enhancing research infrastructure, enabling research programs, and providing key support to emerging programs in such areas as genomics, proteomics and bioinformatics research.

Projects Funded
In 2011/12, projects approved for funding included the following: Electric Vehicle Technology (EVTECH) Learning and Demonstration Centre Initiative; NSERC Chair for Women in Science and Engineering-Prairies (2012-2016); Chaga Clinical Research Project; Development of a Business Plan for an Electron Accelerator Commercial Grade Facility.

Health Research Initiative (HRI)

HRI funding, totalling $2.0 million was provided to five Manitoba health research centres in 2010/11 to assist in supporting research overhead costs. The program funds were apportioned to each centre according to a formula that has been used consistently since the program's inception in 1996/97. Payments to each HRI participant in 2011/12 were as follows:

CancerCare Manitoba	$ 179,000
Manitoba Institute of Child Health	$ 86,000
Health Sciences Centre	$ 366,000
St. Boniface Hospital Research Centre	$ 258,000
University of Manitoba	$ 1,111,000
Total	$ 2,000,000

Innovation Fund

The Innovation Fund component of MRIF had a funding allocation of $450,000 dollars in 2011/2012. The Innovation Fund assists in the implementation of identified strategic Manitoba Government innovation priorities. Funding in this stream is catalytic, supports the broader industry in developing their innovation structures, and promotes economic development by leveraging and expanding research capacity and assisting with technology commercialization.
In 2011/12, Innovation Fund support was provided to three departmental initiatives: MindSet, E-Index and Broadband Connectivity.

Manitoba Centres of Excellence Fund (MCEF)

The Manitoba Centres of Excellence Fund (MCEF) is the Manitoba Government's research and development support mechanism for Manitoba based researchers who have been successful under the Federal Government's Networks of Centres of Excellence (NCE) initiative. The national headquarters for the Intelligent Sensing for Innovative Structures (ISIS) network is located at the University of Manitoba, and has received major MCEF support over the past decade. ISIS conducts research and development on advanced composite materials and electronic sensors for construction engineering projects such as bridges and earthquake resistant buildings.

During 2011/12, MCEF support of $720,000 leveraged a total of $2,813,379 in federal funds from the NCE program. The following University of Manitoba projects were supported:

- Intelligent Sensing for Innovative Structures (ISIS)
- Allergy, Genes and Environment Network (AllerGen)
- Canadian Arthritis Network (CAN)
- Canadian Water Network (CWN)
- The Automobile of the 21st Century (AUTO21)
- ArcticNet
- Advanced Foods and Materials Network (AFMNet)
- Canadian Stroke Network (CSN)
- PrioNet Canada
- Geomatics for Informed Decisions Network (GEOIDE)
- Graphics Animation and New Media Canada (GRAND)
- Mathematics of Informational Technology and Complex Systems (MITACS)
- Wavefront Wireless Commercialization Centre

Science and Technology International Collaboration Fund (STIC)

In 2007/08, the STIC Fund was launched to support international collaborative research projects with the potential to generate commercial activity and economic benefit for the Province of Manitoba. Each year, $1.0 million is set aside from the Research component of MRIF to support research and development initiatives with researchers beyond Canada's borders.

New collaborative research projects funded through the STIC Fund in 2011/12 included:

- Dr. Lorna Turnbull – Israel Innovation, Social Integration and Human Rights Program ($25,000 collaborative project with the Hebrew University of Jerusalem)
- Dr. Gary Glavin – Support in developing applications for five teams led by Manitoba researchers for the Genome Canada competition in Genomics and Personalized Health ($30,000 development project with international partners)
- Dr. Simon Potter – Great Plains Bioproducts Consortium ($20,000 collaborative project with researchers in the mid-western area, USA)
- Dr. Digvir Jayas – Canada-Israel International Fetal Alcohol Consortium's participation in the SAF France Conference, workshop and partnership meetings ($15,000 development project with France)
- Dr. Pawan Singal – Winnipeg Heart International Conference ($10,000 sponsorship with the Institute of Cardiovascular Sciences, St. Boniface Hospital Research Centre).

The remaining 2011/12 STIC funding was used to support multi-year research projects approved in previous years, and STIC-related business development activities.

Manitoba Network for Science and Technology (MindSet)

MindSet is an IEM sponsored initiative led by a full-time Program Coordinator that supports the development, co-ordination and implementation of year-round science and technology awareness activities in Manitoba. MindSet encourages and promotes:

- scientific and technological awareness, knowledge, ability and skills;
- improved school-to-work transition in science and technology areas; and
- innovation in science and technology.

In particular, MindSet's role is one of facilitating, networking, communicating and implementing activities, especially in areas important to the provincial economy. These areas include information technology, biotechnology, aerospace, advanced manufacturing, composites and new materials, and digital media. SIBD provided $250,000 in 2011/12 in support of MindSet's key activities which included:

- Girls in Gaming: Developing Video Games
- Apps Academy
- Green Mining Workshop
- Microsoft Partners in Learning
  - Microsoft Teacher Training
  - Peer Coaching
  - 21st Century Leadership Skills
  - Innovative Teachers Program
  - Innovative Schools Program
  - Microsoft Summer Institute
  - Canadian Kodu Cup
- National Biotechnology Week
- National Biotechnology Story of the Year
- Manitoba/Minnesota Biotech MOU
- BioInnovations
- DNA Barcoding Project
- Gene Researcher for a Week
- The Great Red River Laboratory Challenge
- Sanofi BioGENEious Challenge Canada
- Science Fairs
- Manitoba Robotic Games & Virtual Robotic Games
- Summer Institutes
- Teacher Professional Development Workshops
- TEDx Manitoba Conference
- International Benchmarking Conference
- Virtual Robotic Games
- Canadian Satellite Design Challenge
  - Manitoba Space Adventure 2016 Mars Mission Educational Material
- Canadian Space Agency Partnership
- Biomedical Engineering
- National Cyber Defence Month Conference
- Cyber Defence Challenge
- Marsville

MindSet continues to play a critical role in creating awareness and interest in science and technology careers among Manitoba educators and students.

Manitoba Health Research Council (MHRC)

In 2011/12, the Department transferred $6,002,600 in funding to the Manitoba Health Research Council to support research grants and personnel awards, which MHRC in turn provides to the research community and for the administration of the Council. This funding also helped in the implementation of the *Envisioning the Future* strategic plan developed by the Council.

The MHRC's new strategic direction is based upon four action areas which will increase the strength and capacity of the health research community in Manitoba:

- Establish MHRC as the coordinating body for health research in Manitoba;
- Develop, recruit and retain the best research faculty;
- Facilitate research networks, linkages and communication; and
- Move research evidence into practice.

In 2011/12, the Council approved funding of 2 Manitoba Research Chairs, 1 Manitoba Research Chair in Primary Prevention, 12 Establishment Grants, 11 Operating Grants, 13 Postdoctoral Fellowships, 2 Clinical Fellowships, 3 Dissertation Awards, 51 Graduate Studentships, 1 MMSF/MHRC Clinical Professorship, 6 Bridge Funding Awards and many second and third year awards from previous competitions.

Manitoba Research Chairs are funded for five years, Establishment Grants provide funding for three years, and the Operating Grants, Fellowships and Studentships provide funding for two years.

MHRC funding provided by Innovation, Energy and Mines was supplemented with support from the MHRC's 2011/12 Coordinated Studentship Funding Partners. These partners included: CancerCare Manitoba Foundation; Crohn's and Colitis Foundation of Canada; Health Sciences Centre Foundation; The Lung Association – Manitoba; Manitoba Institute of Child Health; the St. Boniface Hospital and Research Foundation; The Terry Fox Research Institute; University of Manitoba, Faculty of Graduate Studies; and University of Manitoba, Faculty of Pharmacy. MHRC also partnered with the Canadian Institutes of Health Research on the Regional Partnership Program. MHRC's partnership programs leveraged in excess of $2.09 million in external funding.

The following individuals were members of the MHRC Board of Directors in 2011/12:

Dr. Brian Postl, Professor and Dean, Faculty of Medicine, University of Manitoba (Chair)
Dr. Arnold Naimark, Director, Centre for the Advancement of Medicine (Vice-Chair)
Dr. Judith Bartlett, Associate Professor/Health Director, Department of Community Health Sciences, Faculty of Medicine, University of Manitoba/Manitoba Métis Federation
Mr. Lynn Bishop, Chair of the Health Sciences Centre Board (April 2011-June 2011)
Dr. Henry Friesen, Distinguished Professor Emeritus, Faculty of Medicine, University of Manitoba (April 2011-June 2011)
Dr. Albert D. Friesen, President and CEO, Medicure Inc. (April 2011-October 2011)
Mr. Robert Gannon, Immediate Past Chair, St. Boniface General Hospital Board (Secretary Treasurer)
Mr. Ray Hoemsen, Director, Applied Research and Commercialization, Red River College
Dr. Digvir Jayas, Vice-President, Research, University of Manitoba
Dr. Peter Nickerson, Associate Dean, Research, University of Manitoba (June 2011-March 2012)
Ms. Cathy Nieroda, Vice-President, HP Enterprise Services
Dr. Ian Smith, Director General, National Research Council Institute for Biodiagnostics
Dr. Barbara L. Triggs-Raine, Professor, Biochemistry and Medical Genetics, University of Manitoba (June 2011-March 2012)
Ms. Arlene Wilgosh, President and CEO, Manitoba Regional Health Authority

Ex officio:
Mr. John Clarkson, Deputy Minister, Department of Innovation, Energy and Mines (April 2011-January 2012)
Mr. Grant Doak, Deputy Minister, Department of Innovation, Energy and Mines (January 2012-March 2012)

Mr. Milton Sussman, Deputy Minister, Department of Health

Additional information is available in the MHRC Annual Report.

BUSINESS DEVELOPMENT

Information and Communications Technologies (ICT) and Digital Media

Business Development activities for the ICT and Digital Media sectors for 2011/12 were focused in the following areas:

1. Creating an Environment Fostering ICT and Digital Media Business Development
2. Increasing ICT and Digital Media Research and Technology Commercialization
3. Enhancing The Capacity Of Manitoba Communities To Participate In The Knowledge Economy

1. Creating an Environment Fostering ICT and Digital Media Business Development

Industry and Professional Associations

SIBD worked closely with relevant industry and professional associations to promote competitiveness within Manitoba's knowledge based businesses; nurture the growth of an advanced technological infrastructure; and ensure the recruitment and retention of a skilled labour force. Such organizations include the Information and Communications Technologies Association (ICTAM), New Media Manitoba, The International Game Developers Association (Manitoba Chapter), and the Manitoba Customer Contact Association.

Business Incubation

SIBD continued to be actively involved with two technology business incubation projects - The Eureka Project at Smartpark and Biomedical Commercialization Canada (BCC).

- **The Eureka Project** is a technology incubator focused on the priority sectors of information technology and wireless communication, advanced manufacturing and materials, functional foods and nutraceuticals and ag-biotech. Located at the University of Manitoba Smartpark, the incubator's objective is to provide the space, management expertise and resources for the successful development of high technology start-up companies in Manitoba. SIBD continues to work with the program in an advisory capacity and provided a $200,000 contribution in 2011/12 under the Commercialization Support for Business Program to support the continued operation of the incubator.

- **BCC** is a private sector, not-for-profit organization located at the Centre for Commercialization of BioMedical Technology. It provides a host of resources and people to help early-stage science and technology companies enter the market, secure investment and/or pursue their acquisition strategy. BCC assists its clients in the areas of: facilities and infrastructure, mentoring, coaching and participation, and finance and investment. SIBD continues to work closely with the program and provided a $200,000 contribution in 2011/12 under the Commercialization Support for Business Program to support the continued operation of the incubator.

Information and Communications Technology Association of Manitoba (ICTAM)

ICTAM is an industry-focused association whose goal is to accelerate the growth, prosperity and sustainability of the ICT industry through relevant programming, advocacy and collaboration. As a not-for-profit, membership based association, ICTAM's constituency is broadly based, encompassing vendors, consumers, government, education, chambers of commerce and sector councils. As information and communication technologies are enabling every facet and type of business, ICTAM assists member

companies in achieving greater success through human capital development programs, networking events, conferences, cost-saving benefits and promotional marketing opportunities

SIBD provided $100,000 in 2011/12 to support numerous programs related to the development of a skilled and sustainable ICT workforce as well as the development of a three year Economic Development Strategy for the sector. Program funding in 2011/12 supported the engagement of:

- 5 Manitoba schools and 59 Aboriginal students in the Tech Trek Aboriginal Youth ICT Challenge. This program introduces Aboriginal Youth to business and technology, entrepreneurship as well as the vast range of career opportunities available in the sector.
- 44 internationally educated professionals (IEPs) in the WorkIT program. Work IT is a comprehensive employer-focussed program to support IEPs in identifying their skills in relation to job profiles provided by Manitoba ICT companies with the overall aim of matching them with employers who need their skills to fill vacancies.
- 65 women in NavigaIT; ICTAM's Women in Technology mentoring program. This program provides mentoring for young women in or considering careers in the ICT sector and provides opportunities to spend time with experienced female leaders in ICT to garner advise, direction about how to build a successful career in the sector.

ICTAM also completed an extensive survey of the sector in 2011/12; information which will form the foundation for the development of a three year economic development plan for release in 2012.

New Media Manitoba (NMM)

NMM is a non-profit association of professionals that advocate and provide focused training, support and guidance to the new media business and development community. Comprised of over 900 members, NMM is a common ground for people seeking to make connections and collaborate on interactive digital projects. In 2011/12 New Media Manitoba received $25,000 from the department for an Industry Profile and Economic Impact Analysis. This analysis is part of a larger three year industry development project which will generate new economic development activities in the interactive digital media sector. This initiative will enable New Media Manitoba to enhance awareness and knowledge of this industry and develop strategic partnerships to support the growth of Manitoba companies.

Similar to the film/television industry, the scale and scope of Manitoba's local digital media industry is limited by available resources, such that outside work is an important factor in increasing the volume of activity and supporting infrastructure in the province. In 2011/12, SIBD assisted in developing these linkages through participation with NMM, five Manitoba companies and other stakeholders in the Game Developers Conference (GDC) in San Francisco. This event generated more than 75 face to face meetings for Manitoba companies and numerous opportunities for partnerships and sales in international markets in the year ahead.

Manitoba Interactive Digital Media Tax Credit (MIDMTC)

The MIDMTC was introduced in 2008/09 to stimulate investment in Manitoba's digital media industry and is a refundable tax credit for companies that develop and produce interactive digital media products in Manitoba. This is a 40% tax credit (maximum of $500,000) to qualifying corporations for eligible Manitoba labour expenditures that are directly attributable to the development of an eligible interactive Digital Media Product. In 2011/12, five Tax Credit Certificates in the amount of $102,121 and nine Certificates of Eligibility were issued. The MIDMTC is one of the most generous in Canada on a percentage of labour basis in comparison to other provinces offering digital media tax credits.

2. Increasing ICT and Digital Media Research and Technology Commercialization

TRLabs

TRLabs is Canada's largest ICT research and innovation consortium, with an important node of activity based in Winnipeg. As a non-profit consortium, the main focus of TRLabs is solving Information and Communications Technologies' (ICTs) related challenges by bringing academics and students from Canada's universities together with their industry members to collaborate on projects. TRLabs' engagement is in all aspects of the innovation process, from developing and testing pre-commercial technology to providing highly tailored training of highly qualified personnel (HQP). The Government of Manitoba announced a five-year funding agreement worth $2.6 million with TRLabs in April 2011, and provided $480,000 against this commitment in 2011/12.

SIBD continued to work actively with TRLabs in Manitoba to explore ways of increasing the number of applied research and commercialization projects undertaken with local Manitoba companies. During 2011/12, TRLabs Winnipeg attracted $534,000 from industry members and non-members in support of their activities. In terms of technology output, they performed 51 opportunity assessments, 6 technology assessments, 2 prototypes, and supported 3 commercializations for release in Canadian and international markets.

Innovation, Energy and Mines provided support for the ICT Symposium, entitled "Convergence is here.... Now what?", which attracted 125 attendees from industry, government and academia to Winnipeg to explore emerging themes within the ICT community. A highlight for TRLabs in 2011/12 was the establishment of their Security Ecosystem theme, with three founding members and two active projects. The goal of the ICT Security Program is to create an environment where ICT security knowledge can be developed and ultimately commercialized by participating industry partners. To accomplish this goal, the ICT Security Program supports a balance of applied research and development activities, along with new technology innovation activities that drive technology commercialization. In 2012/13, TRLabs is aiming to increase membership participation in the Security Ecosystem, as they demonstrate success in their focus projects.

Financial Assistance Programs Supporting Commercialization

In concert with Manitoba Entrepreneurship, Training and Trade, SIBD continues to work with technology-based companies to provide support for commercialization and business development. In 2011/12, 19 ICT/Digital Media companies and organizations received support through Commercialization Support for Business Program (CSB) totalling $730,780. The CSB program also supported 6 Life Science and Clean Tech applications totalling $703,000.

3. Enhancing Capacity of Manitoba Communities to Participate in the Knowledge Economy

E-Index

SIBD worked closely with government and community stakeholders to advance "E-Readiness" in Manitoba communities as defined by the assessment of community, organizational and individual capacity to fully participate in the knowledge based economy through the utilization of appropriate skills and infrastructure. This assessment is enabled by a made-in-Manitoba tool called the E-Index. The E-Index provides information on four elements; a community's level of technological infrastructure, the population's skill level, the utilization of technology as well as the community's capacity to afford technology. A community's capacity across these four elements can be directly correlated to their ability to achieve and maintain competitiveness as communities evolve from traditional to knowledge based economies.

In 2011/12, IEM supported assessment for 5 Manitoba communities – Sagkeeng First Nation, Roseau River Anishinabe First Nation, and the Rural Municipalities of St. Pierre, St. Claude and Desalaberry. Final reports and a strategic plan based on the outcomes of the assessment in each community are expected in 2012/13.

Life Sciences

In the life sciences sector, SIBD worked with key stakeholders on initiatives in the biomedical, health biotech, and agricultural biotech sectors that led to increased economic activity in the province.

Activities in 2011/12 were primarily focused on three priorities:

1. Working With Key Stakeholders on Economic Development Initiatives;
2. Increasing Industry Awareness of the Life Sciences Sector Internally and Externally; and
3. Establishing Formalized Linkages.

1. Working with Key Stakeholders on Economic Development Initiatives

Mid-Continent Knowledge Corridor

The purpose of the Mid-Continent Knowledge Corridor is to capitalize on established relationships through the North America Super Corridor Coalition (NASCO), and develop a network of researchers, industry representatives, and government officials that will work collaboratively to strengthen the life sciences cluster along the central corridor of North America. It is anticipated that this knowledge corridor will also attract investment and research partners from the east and west coasts.

SIBD is actively working with partners in Minnesota, Wisconsin and North Dakota to develop linkages with these jurisdictions. Research institutes and industry partners in the areas of health biotechnology, medical devices, agri-health products, industrial biotechnology and bioenergy have been actively engaged.

Composites Innovation Centre (CIC)

The Composites Innovation Centre Manitoba Inc. (CIC) was incorporated in October 2003 as a not-for-profit corporation with the goal of stimulating economic growth by facilitating innovative technology and product development involving advanced composite materials. The organization provides technology-solutions for companies producing or repairing composite products with a focus on aerospace, bio-composites, ground transportation and civil infrastructure. To achieve its development mandate, the CIC uses key core technical capabilities and knowledge gleaned from a large national /international network of research and commercialization organizations. The organization also supports education and training initiatives aimed at ensuring the availability of people with critical skills for industry.

SIBD provided $138,875 in 2011/12 to support numerous programs related to research collaborations to accelerate the growth, prosperity and sustainability of bio-product across five jurisdictions. This year, program funding supported the initiation of collaborations for:

- Eco-cycle Prototype Development collaboration led by Dr. Simon Potter, Composites Innovation Centre Inc. and Tom Creal, Chopper College, Minneapolis. This funding will sustain the project over two years.
- CRC-ACS Project 1.1: Plant Fibre Biocomposites led by Dr. Simon Potter, Composites Innovation Centre Inc. and Dr. Andrew Beehag, Cooperative Research Centre – Advanced Composite Structures, Victoria, Australia. This funding will sustain the project over two years.

Manitoba Agri-Health Research Network (MAHRN)

Since 2007 MAHRN has been a portal to the Province's nationally and internationally recognized centres involved in the commercialization of agricultural products for improved health. Manitoba's agri-health sector is home to three leading edge facilities that work closely with industry to research and develop functional foods and nutraceuticals: Canadian Centre for Agri-food Research in Health and Medicine, Richardson Centre for Functional Foods and Nutraceuticals, and the Food Development Centre. MAHRN has been integral in the development of key industry and research linkages with partners in the European Union, Chile, Australia and Minnesota. In 2011/12, IEM provided MAHRN with $75,000 in support of international projects and priorities.

Life Science Association of Manitoba (LSAM)

LSAM represents Manitoba's growing life sciences sector. The Association's objectives are to coordinate activities to address member needs and concerns and to inform members of changes in the global biotech industry. The current LSAM mandate focuses on four pillars:

1) Facilitate synergies in the life science industry through connecting people, information and ideas;
2) Support the development of Manitoba's human resource capacity;
3) Strengthen the business environment for members; and
4) Provide a voice for the life science industry in Manitoba.

LSAM is working closely with SIBD staff and key Manitoba stakeholders on sector specific outreach and coordination activities. In 2011/12 SIBD provided LSAM with $100,000 to support the Association's strategic sector development activities.

2. Increasing Industry Awareness of the Life Sciences Sector Internally and Externally

BIO 2011 International Biotechnology Convention and Exhibition

Each year, the Biotechnology Industry Organization (BIO) hosts the world's premier biotechnology conference, bringing together scientists, entrepreneurs and innovators from around the world. Held in Washington, D.C., BIO 2011 brought together over 15,000 industry leaders from 48 states and 65 countries to discuss and share the latest developments and most pressing issues facing the biotech industry.

In 2011/12, approximately 30 Manitoba delegates attended BIO and showcased the province's life science industry capabilities at a number of key events—including a joint Manitoba-Minnesota-Wisconsin business partnering reception and a Manitoba BIO Breakfast.

Life Science Alley (LSA) Conference 2011

The LSA Conference & Exhibition is an annual event hosted by Minnesota's LifeScience Alley® and the BioBusiness Alliance of Minnesota (LSA/BBAM). The Province of Manitoba was a premier sponsor of the conference, which was held on December 7, 2011 in Minneapolis, MN. Manitoba's sponsorship of this event builds upon the ongoing commitment by Manitoba and Minnesota to establish a life sciences corridor between the two jurisdictions, as articulated within a 2004 MOU for biosciences and life sciences collaboration. Manitoba's partnership with LSA/BBAM has resulted in a broader scope of economic development opportunities for Manitoba.

Manitoba's participation at the LSA 2011 Conference doubled from 2010, with a delegation of 39 participants representing nine companies, three research institutes, and one industry association. This increase in participation indicates the value Manitoba's industry places on the partnership with Minnesota and the importance in further developing these connections through attendance at the conference and engagement in business partnering meetings.

As a result of Manitoba's participation at the 2011 conference, companies were able to increase their visibility in Minnesota, develop key networks, strategic linkages with partners in Minnesota and gain visibility as a leader in the mid-continent knowledge corridor. One key Manitoba organization has secured a strong alliance with BBAM that resulted in the establishment of a Great Plains BioProducts Consortium (GPBC), which is a vehicle to coordinate research along the mid-west corridor.

3. Establishing Formalized Linkages

Letter of Intent (LOI) to Corporate on Research and Innovation Initiatives

At the 2011 International BIO Convention in Washington, D.C. the Province of Manitoba and the Province of Saskatchewan signed a Letter of Intent (LOI) to corporate on Research and Innovation Initiatives. This LOI acknowledges the advantages to be gained by strengthening and broadening mutually beneficial relationships and capacities. The Manitoba – Saskatchewan LOI recognizes common interests in six key priority areas: crop agriculture; bioenergy, bioproducts and environment; and human and animal health. The LOI provides the framework for discussion as well as the identification of additional areas of collaboration.

The Province of Manitoba and the Province of Saskatchewan each possess world-class expertise, important and growing industries and state-of-the-art infrastructure in the research and innovation sectors; and see the potential to build on existing productive relationships amongst universities and industry in the research and innovation sectors in the two jurisdictions.

Research Investment Tours

Over the past year SIBD, in partnership with the Life Science Association of Manitoba (LSAM), has been actively engaged in bringing industry to Manitoba with the intent of attracting research and development (R&D) investment. In 2011/12, SIBD hosted two delegations, which brought representatives from across Canada to Manitoba in search of opportunities for investment. By building custom programs highlighting the alignment of Manitoba's strengths with company therapeutic priorities, SIBD has successfully created expansive interest in Manitoba's companies, organizations, and research institutes.

BROADBAND INITIATIVE

Since its creation in September 2001, the Broadband Initiative has been active in promoting partnerships with community based organizations and the private sector to provide broadband or high-speed Internet access to communities where that service did not exist. The Province's vision is to utilize high speed Internet connectivity to secure economic and social benefits available through the use of information and communications technologies for the benefit of Manitobans.

The Initiative has supported activities undertaken by Industry Canada's Broadband for Rural and Northern Development (BRAND) Program. This $150 million National initiative announced in September 2002, has provided 118 Manitoba communities with a total of $6.6 million in matching funds to enable the creation of broadband networks throughout the province.

In July of 2004 the province's new Broadband Strategy entitled "Connecting Manitobans" was approved. The strategy's main objective is to ensure that all communities in Manitoba have access to broadband or high speed network services by 2010. In order to help attain this goal, the Municipal Rural Infrastructure Fund (MRIF) has, since June 2005, allocated $7.5 million to community based telecommunications infrastructure construction, thereby allowing a further 67 Manitoba communities to benefit from accessing Broadband networks.

The Community Information Enhancement Project (CIEP) is an initiative undertaken by IEM. It was originally developed in 2009 as a "Pilot Project" in order to enable 30 communities in northern Manitoba as a technology enhancement and community education initiative. Impacts of this program include promotion of local Community Economic Development (CED) initiatives that communities undertake under their own volition. The program has allowed communities to individually and/or regionally enter or enhance their presence in the digital arena by creating new websites and/or revisions of older websites. As a result of its success, the CIEP program was officially completed on March 31, 2012 after supporting more than 67 community websites over a 3 year period.

In 2010/11 IEM also piloted the Adoption of Technology for Economic Change (A-TEC) in Waywayseecappo First Nation to integrate broadband & other technologies into the local social & economic environment. The original community was selected through an assessment process which identified broadband capacity, knowledge, sufficient community resources and space availability for the

youth. The project included working directly with partners such as: Waywayseecappo First Nation and Manitoba E-Association in order to initiate a multi-tiered project that ensured immediate and long term economic development impacts. It was accomplished by integrating broadband & other technologies into the local social & economic environment. It was done without hindering local cultural values.

The A-TEC program is a complement to the CIEP program and as a result of its success is now being offered in Sapotaweyak Cree Nation and Pelican Rapids. IEM has been working directly with these two (2) communities, Community Futures (CF) Cedar Lake and MB E-Association over the past 24 months and are currently working on a long term project for 2012/13 that will provide even greater community economic value to the cultural and spiritual activities in these communities. The communities were selected using the same principles as the original A-TEC project and were based on availability of infrastructure, resources and an extended willingness to preserve language and culture. The team is also working directly with the communities in order to develop a fall 2012 application that would encourage an extended partnership with Heritage Canada. The final extension of this project, to be known as A-TEC III, will include development and delivery of cultural curriculum through classroom and workshop activities over a 12-month period starting on April 1, 2013 and completed on March 31, 2014.

18-3(a) Science, Innovation and Business Development

Expenditures by Sub-Appropriation	Actual 2011/12 $	Estimate 2011/12 FTE	Estimate 2011/12 $	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	1,556	19.00	1,579	(23)	
Total Other Expenditures	610		613	(3)	
Total Manitoba Research and Innovation Fund	13,400		13,300	100	
Total Manitoba Centres of Excellence Fund	720		720	-	
Less: Recoverable from Urban Development Initiatives	(750)		(750)	-	
Total Expenditures	**15,536**	**19.00**	**15,462**	**74**	

MANITOBA HEALTH RESEARCH COUNCIL

The Manitoba Health Research Council (MHRC) provides funding for health research initiatives. The Manitoba Health Research Council tables its annual report under separate cover with the Manitoba Legislature.

18-3(b) Manitoba Health Research Council

Expenditures by Sub-Appropriation	Actual 2011/12 $	Estimate 2011/12 $	Variance Over (Under)	Expl. No.
Total Expenditures	6,003	6,003	-	

INDUSTRIAL TECHNOLOGY CENTRE

The Industrial Technology Centre (ITC) is a special operating agency of the Department of Innovation, Energy and Mines. The Department supports ITC's contribution to economic development activities in Manitoba via an Economic Development Contribution Agreement (a performance contract). ITC provides a wide range of technical services in support of technology based economic development in Manitoba. ITC tables its annual report under separate cover with the Manitoba Legislature.

18-3(c) Industrial Technology Centre

Expenditures by Sub-Appropriation	Actual 2011/12 $	Estimate 2011/12 $	Variance Over (Under)	Expl. No.
Total Expenditures	900	900	-	

MANITOBA EDUCATION, RESEARCH AND LEARNING INFORMATION NETWORKS

The Manitoba Education, Research and Learning Information Networks (MERLIN), is a special operating agency of the Department of Innovation, Energy and Mines. MERLIN tables its annual report under separate cover with the Manitoba Legislature.

18-3(d) Manitoba Education, Research and Learning Information Networks (MERLIN)

Expenditures by Sub-Appropriation	Actual 2011/12 $	Estimate 2011/12 $	Variance Over (Under)	Expl. No.
Total Expenditures	396	396	-	

BUSINESS TRANSFORMATION AND TECHNOLOGY

OBJECTIVES

Provides strategic leadership to continuously improve the Manitoba Government's Information, Communications, and Technology (ICT) environment through planning and implementing solutions to meet current and future needs.

ACTIVITIES/RESULTS

- Improve service delivery by modernizing government through achieving simplicity, developing partnerships, engaging technology, organizational innovation, streamlining and improving business interactions, and performance reporting.
- Provide leadership for improvement of service quality, citizen-centered service delivery and on-line service initiatives.
- Maximize the potential of SAP.
- Facilitate operational transformation through operational reviews, business analysis, organizational change management, user transition, development of communication plans, training support and end-user role definition and readiness.
- Serve as a link to inter-jurisdictional committees and forums where information and knowledge on service delivery and operational transformation are exchanged.
- Provide support for Committees driving service delivery and operational transformation.
- Develop and continually improve ICT strategic plans, policies, and measurement protocols.
- Work with stakeholders to optimize and align the ICT investment portfolio.
- Research and design new ICT products and services to help build new effective solutions.
- Establish flexible and adaptable information, application and technology foundations.
- Establish and monitor security standards and architecture.
- Provide ICT Goods and Services procurement and contract negotiation services to government programs.
- Ensure an adequate level of ICT Governance is in place to manage ICT resources.
- Provide ICT Risk Management capabilities to ensure adequate mitigation strategies are in place, including appropriate levels of Business Continuity capabilities and Disaster Recovery strategies.
- Proactively participate in strategies to enhance the ICT Sector within Manitoba.
- Exercise comptrollership responsibilities and provide overall financial leadership for ICT.
- Coordinate and manage the use of ICT resources across the ICT program portfolio.
- Proactively manage ICT contracts and license agreements.
- Plan, recruit, allocate, evaluate, train and develop resources for ICT work
- Manage the process of implementing major changes in ICT to reduce the risks and costs of change, and to optimize its benefits.
- Manage the relationship between ICT and clients to ensure needs are addressed.
- Provide client support in the day-to-day delivery of services.
- Improve the efficiency and effectiveness of project delivery through application of standard project management practices.
- Develop, deploy and support critical ICT infrastructure services.
- Develop and integrate applications to create functional systems responsive to the requirements of clients' program delivery needs.
- Work with the private sector and community based organizations in order to provide high-speed connectivity and broadband capacity to those areas in the province where such services do not currently exist.
- Maintain and operate existing applications that support the delivery of government program services.

BUSINESS TRANSFORMATION AND TECHNOLOGY reports the following results in 2011/12

- Provided an ongoing government-wide information security awareness program. Continued to work with the Office of the Auditor General to improve practices and policies around systems which support Public Accounts.
- Promoted and utilized the Organizational Change Management Program to assist departments with service transformation activities.
- Supported Service Quality Partners through various activities such as the Manitoba Service Excellence Awards (MSEA), networking and learning opportunities through the Brown Bag Lunch Program and through learning seminars related to service quality.
- Conducted employee and departmental surveys for various stakeholders.
- Migrated connections from the government's seven-year-old provincial data network linking provincial government offices, schools, health-care facilities and other public sector organizations to the new Manitoba Network to serve as a catalyst for the future expansion of broadband and high-speed Internet access services to rural and northern Manitoba communities.
- Introduced new web services to support programs.
- Implemented numerous technology projects with government departments including:
    - Biz Pal – further enhancements to Business Permits and Licensing.
    - Online Traffic Violation Payments – capability to pay traffic violations online
    - Access Manitoba – Apprentices to interact with government and business online
    - Online Child Care Registry – an online service to parents searching for Child Care Services
    - Manitoba Maintenance Management Program – improved collection and distribution of maintenance payments
    - Online Address Change – allows individuals to provide their update address information to select government programs and utilities
    - Employee Self Service – introduced some ability for employees to view and update select employee relevant information online.
    - Point of Sale – replaced the outdated revenue collection system with a new corporate system used by several government programs.
    - Aquarius Water Level Monitoring System - collects and manages river level data
    - Integrated Mining and Reporting system – automates several business process to acquire and manage mining and quarrying rights and related permits and licenses.
    - Integrated Birth Registration – Launched a service to assist families who want to register a birth and apply for relevant programs for their newborns.
    - Non-Profit Web Portal – Designed a portal to support the organizational needs of a pilot group of Non Profit organizations. The site provides links to information, tools and program descriptions.
- Provided ongoing problem resolution and system enhancement activities for all managed business applications.
- Implemented an Application Portfolio Management Initiative to evaluate all applications in government and develop a long range strategy.

18-4(a) Business Transformation and Technology

Expenditures by Sub-Appropriation	Actual 2011/12 $	Estimate 2011/12 FTE	Estimate 2011/12 $	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	18,849	205.72	18,397	452	
Total Other Expenditures	83,681		76,935	6,746	
Total Expenditures	**102,530**	**205.72**	**95,532**	**7,198**	*1*

1. NetSet Loan provision, additional printer, email, mainframe costs offset by recoveries

18-4(b) Business Transformation and Technology Recovery

Expenditures by Sub-Appropriation	Actual 2011/12 $	Estimate 2011/12 FTE	Estimate 2011/12 $	Variance Over (Under)	Expl. No.
Total Recoverable from other Appropriations	(57,866)		(54,951)	(2,915)	
Total Expenditures	**(57,866)**		**(54,951)**	**(2,915)**	*1*

1. Additional printer, email, mainframe costs recoveries offset by expenditures

LEGISLATIVE BUILDING INFORMATION SYSTEMS

OBJECTIVES

To provide a secure technological environment with highly responsive support services and reliable systems that address business requirements of diverse users in the Legislative Building.

The user community encompasses both government and non-government staff. Government staff includes Executive Council, Ministers' and Deputy Ministers' offices, Treasury Division, and departmental staff that work in the building. Non-government staff includes the Legislative Assembly offices of the Speaker and the Clerk, the Leaders of the Opposition, and Caucus offices.

ACTIVITIES/RESULTS

Activities undertaken in 2011/12

- Direct and plan Information Technology initiatives in the Legislative Building;
- Develop and implement strong security strategies to protect electronic information;
- Provide desktop management services including help desk support, requirements analysis, purchasing and asset management;
- Implement and manage all computing services such as e-mail, document storage, printing, remote access, etc.;
- Manage the communications infrastructure for the building network, access to the Internet, and access to the Government-wide network;
- Analyze, develop, implement and support business applications; and
- Provide consulting and project management services on outsource initiatives.

Legislative Building Information Systems reports the following results in 2011/12

- Provided Caucus groups with consulting and technical support. Initiated upgrade to Active Directory, Exchange and Blackberry Enterprise servers, including antivirus upgrade.
- Provided Legislative Assembly with consulting, technical, and project management services in support of various specialty applications. Implemented a replacement system for Hansard transcription services.
- Upgraded the Activity and Issues Management System (AIMS) to the latest operating system.
- Created and implemented a server virtualization and consolidation strategy reducing hardware requirements.
- Upgraded the LYRIS News Release system for News Media Services to accommodate other independent government agencies.
- Continued the desktop strategy to re-engineer custom applications to thin client and virtualized technology. This includes the latest office automation software as part of an ongoing refresh cycle.
- Enhanced connectivity to the Managed Environment.
- Investigation of video streaming technologies for News Media Services.
- Provided Treasury Division with consulting, technical, and project management services in support of various specialty applications. Completed upgrade of server environment to latest operating system.
- Initiated email service upgrade.
- Upgraded backup strategy utilitizing newer technologies, reducing backup and recovery timelines.
- Completed project to upgrade network infrastructure.

18-4(c) Legislative Building Information Systems

Expenditures by Sub-Appropriation	Actual 2011/12 $	Estimate 2011/12 FTE	Estimate 2011/12 $	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	1,019	12.00	1,010	9	
Total Other Expenditures	266		310	(44)	
Total Expenditures	**1,310**	**12.00**	**1,320**	**(35)**	

MINERAL RESOURCES

MANITOBA GEOLOGICAL SURVEY

OBJECTIVES

The **Manitoba Geological Survey** (MGS) provides authoritative geoscience information to support and facilitate mineral and petroleum exploration in the province, and also conducts a broad range of geoscience activities that address land-use and environmental issues facing Manitobans.

The **Minerals Policy and Business Development** section of MGS is responsible for monitoring industry and commodity information used in formulating Manitoba's minerals policies, promoting mining and exploration investment opportunities, administration of Manitoba's mineral exploration incentive programs and organizing and staging of the annual Mining and Minerals Convention. The section also helps facilitate the provision of community adjustment services to communities facing mine closure. To achieve these goals, the Minerals Policy and Business Development section works closely with the Manitoba Geological Survey and the Mines Branch of Innovation, Energy and Mines, as well as all affected government departments.

ACTIVITIES/RESULTS

GEOSCIENCE PROGRAM

In 2011, the Manitoba Geological Survey (MGS) continued major field projects in Manitoba's far north, as part of our Far North Geomapping Initiative and supported in part by the Geological Survey of Canada (GSC) Geo-mapping for Energy and Minerals (GEM) program. The northern projects included bedrock and surficial mapping in the Snyder Lake region of northwestern Manitoba, surficial studies at Churchill and Phanerozoic studies in the Hudson Bay Basin. Fieldwork continued in the Snow Lake area and the Thompson Nickel Belt (TNB), building on work in 2008–2010. New work was undertaken to better define the setting of a number of commodities, including gold (in the Rice Lake Belt), rare earth elements (at Burntwood Lake) and nickel (in the Mayville area of southeastern Manitoba).

Phanerozoic investigations focused on evaluation of the potential for shallow unconventional Cretaceous shale gas in southwestern Manitoba, three-dimensional geological modelling in southern Manitoba and collaborative work with the GSC in the Hudson Bay Basin.

Academic and industry colleagues present the results of new or continuing thematic studies in Flin Flon, Snow Lake, The Pas and southeastern Manitoba.

The program is reviewed annually by the Mineral Exploration Liaison Committee (MELC), composed of members of the Mining Association of Manitoba, the Manitoba Prospectors and Developers Association and the Manitoba-Saskatchewan Prospectors and Developers Association, as well as representatives from the universities of Manitoba and Brandon, and the Geological Survey of Canada.

Collaborative programs with the Geological Survey of Canada

The Geo-mapping for Energy and Minerals (GEM) initiative, announced by the Government of Canada in 2008, is a five-year program designed to provide the geoscience information necessary to guide investment decisions leading to the discovery and development of new energy and mineral resources. The GEM-Minerals initiative in Manitoba is represented by a 2008 GSC-funded airborne radiometric and magnetic survey in the Great Island area; these data were used to support the subsequent geological mapping at Great Island by the MGS in 2009. The GEM initiative also provides support for surficial mapping and geochronology in projects of Manitoba's Far North Geomapping Initiative. A GEM-Energy project is focused on the Phanerozoic stratigraphy of the Hudson Bay and Foxe basins.

The Targeted Geoscience Initiative (TGI) is a federally funded program that is co-planned and jointly delivered with provinces and territories, which provide their own funding for their activities under the program. The TGI-4, announced in the February 2010 federal budget, is the fourth such initiative since

2000 and focuses on deep exploration. Projects to be conducted under the five-year TGI-4 are in the first year of field study.

Activities and results for 2011/12 are listed below as they pertain to MGS Program Objectives.

1. Increasing Manitoba's minerals geoscience knowledge base

Far North

The Manitoba Geological Survey's Far North Geomapping Initiative continued in the summer of 2011 with bedrock and surficial geological mapping in the Snyder Lake area, in the northwestern corner of the province. The Snyder Lake area is underlain by medium- to upper-amphibolite grade metasedimentary rocks of the Wollaston Supergroup, flanked by high-grade intrusive rocks of possible Archean age. Calcsilicate gneiss and marble in the Snyder Lake area locally host uranium and/or rare earth element (REE) occurrences, both in outcrop and in glacial deposits. The mineralization appears to occur in silicified, albitized and hematized zones, which presents a different mineralization environment and process compared to the unconformity-type uranium deposits at or near the top of the Wollaston Supergroup rocks in Saskatchewan.

Quaternary geological investigations were undertaken in the Snyder Lake area in conjunction with the detailed bedrock mapping. This surficial mapping provides a modern geoscience knowledge base tailored towards current and future mineral exploration and/or infrastructure development. These studies aim to provide a detailed framework for the directions, timing and nature of major and minor ice-flow events in the region. The Snyder–Grevstad lakes area hosts several known showings and boulder trains with enriched uranium and/or REE. Local, detailed boulder and till surveys based on known mineralized outcrops can provide dispersal-train patterns, which can be used to measure ice-transport distances and directions that can be applied to drift exploration in this challenging region.

A 30 km stretch of well-exposed bedrock on the southwestern coast of Hudson Bay, near Churchill, Manitoba, was thoroughly examined for erosional ice-flow indicators. Churchill quartzite outcrops preserve a complex record of ice-flow indicators that likely record a mix of Keewatin and Quebec-Labrador ice sources. In combination with clast-dispersal and stratigraphic data, this information will help determine up-ice source areas and possible dispersal vectors for drift prospecting in northeastern Manitoba.

Flin Flon Belt

Remapping of the portion of the Flin Flon Belt lying under Phanerozoic cover was initiated in 2009 by the Manitoba Geological Survey to produce revised geological maps of an area that is the focus of significant new mineral exploration. A key portion of the remapping effort consists of building a comprehensive database of historical data (drillcore logs, geochemistry, etc.) for the sub-Phanerozoic Flin Flon Belt, using a Microsoft® Access® database. The development of a comprehensive database of all existing geoscientific data in the sub-Phanerozoic Flin Flon Belt will be of great assistance in revising the geological maps of the area, as well as in producing three-dimensional (3-D) models of areas of interest. The newly acquired ability to bring such historical data into a Geographic Information Systems (GIS) environment will also help achieve a better understanding of the regional distribution of geological domains and prospective assemblages, providing valuable guidance for current and future mineral exploration programs.

Detailed mapping (1:2000 scale) in the vicinity of the Schist Lake and Mandy deposits was undertaken by a researcher from Mount Royal University to determine whether the ore horizon for the deposits may be the time-stratigraphic equivalent to the main ore-hosting stratigraphy in Flin Flon, or unrelated and simply juxtaposed by a fault. Although the stratigraphic relationship with the ore-hosting stratigraphy in Flin Flon remains unresolved, this work did result in the potential recognition of synvolcanic structures, and associated synvolcanic depositional basins, in the Schist Lake–Mandy area. Such structures provide more evidence that key conditions required to form a volcanogenic massive sulphide (VMS) deposit are observed in the rocks overlying the Schist Lake and Mandy deposits.

In 2011, MGS fieldwork in the Snow Lake area was completed along the western side of Squall Creek and north of Lalor Lake. The resulting data have been combined with the detailed geology acquired by earlier investigations to update the geological map of the area. Snow Lake arc assemblage volcanic rocks of the map area share geochemical characteristics with the upper Chisel sequence at Snow Lake.

During the 2011 field season, lithostratigraphic mapping was undertaken within the McLeod Road–Birch Lake thrust panel in the Snow Lake area as part of a Ph.D. study at Laurentian University. The aim of this new study is to outline and define early regional structure, which will have implications for the understanding of gold mineralization at the New Britannia mine.

Kisseynew Domain

A reconnaissance geological investigation of the Burntwood Lake syenite was conducted to evaluate the potential for REE mineralization. The rocks of the Burntwood Lake syenite are enriched in light rare-earth elements and large-ion lithophile elements, and depleted in high-field-strength elements. The Burntwood Lake syenite bears many similarities to the Eden Lake Complex, which has been an exploration target for REE mineralization.

Thompson Nickel Belt and Superior Boundary Zone

Mapping in the Manasan Falls area has revealed the presence of a supracrustal sequence that is likely Archean in age. The new findings at Manasan Falls, together with recent discoveries of Archean supracrustal rocks elsewhere in the Thompson Nickel Belt, suggest that some occurrences of supracrustal rocks in the TNB have been misinterpreted as Paleoproterozoic Grass River Group or Ospwagan Group rocks, and that Archean supracrustal rocks may be considerably more widespread than previously recognized. It is important that the nature of the typically barren Archean supracrustal rock sequence(s) be documented so that they can be differentiated from the nickel-hosting Ospwagan Group supracrustal rocks.

Superior Province

Detailed (1:5000 scale) geological and structural mapping of the Rice Lake mine trend was conducted in 2011 to address the need for a single, comprehensive and up-to-date geological map of the mine trend at a scale suitable for modelling the distribution and geometry of the contained gold deposits and the controls on mineralization. This work represents a significant upgrade to the existing geological map and serves to emphasize the important role of hostrock composition, competency and primary strength-anisotropy in the localization of vein-hosted gold mineralization in the Rice Lake mine trend. Related work presents new information on the structural geology of the hostrocks and quartz-vein systems in the Rice Lake mine trend, with emphasis on small-scale examples of shear-associated vein systems exposed on surface.

A new project was initiated in the Mayville mafic–ultramafic intrusion, located in the Neoarchean Bird River greenstone belt of southeastern Manitoba. The objective of the project is to address fundamental questions relating to the economic potential of the Mayville intrusion, which contains numerous platinum group element (PGE), copper, nickel and local chromium occurrences. Preliminary investigations involving core logging and re-examination of analytical data have identified the stratigraphic location of the sulphide-rich mineralization, and have shown that the disseminated sulphide minerals are widespread and transition zones between major rock units may carry significant amounts of PGE.

2. Increasing Manitoba's hydrocarbon geoscience knowledge base

The Shallow Unconventional Shale Gas Project is a multi-year investigation of the shale gas potential of the Late Cretaceous shale strata of southwestern Manitoba. The geochemical and mineralogical information that has been gathered for these rocks is important in providing a geoscientific knowledge base for further study and exploration. Information assists in identifying units in the Late Cretaceous shale sequences that have promising characteristics for expanding the potential pay zone thickness at any given location, making exploratory drilling more attractive. Based on the geochemical and mineralogical information, the Favel and Carlile formations are identified as the best shale gas targets, with some potential in the Gammon Ferruginous Member of the Pierre Shale.

The Hudson Bay and Foxe basins project of the (GEM) program is in its third year. The aim of this project is to understand the sedimentological framework in this part of the Hudson Bay Basin, to help promote hydrocarbon exploration in this underexplored region. Work in 2011 focused on completing the logging of all available drillcore in the Hudson Bay Lowland of Manitoba, and sampling for geochemical and biostratigraphic analyses. Work to date suggests that the Hudson Bay Basin has undergone sufficient burial and heating for source rocks to pass through the oil window, leading to a potential active hydrocarbon system in this basin.

The MGS is collaborating with Westcore Energy Ltd. on the stratigraphic setting of Westcore's 2011 discovery of nine Cretaceous coal basins located southwest of The Pas. The coal is interbedded with carbonaceous sedimentary rocks and sandstone within the Swan River Formation. Individual layers of coal range in thickness from less than 1 m up to 63 m; in one instance, the composite thickness of several layers is more than 95 m. Basin morphology is interpreted to be that of bowl-shaped depressions that formed in the underlying Devonian paleosurface.

3. Promoting effective land use and resource management

The MGS participated in the Protected Areas Mining Sector Consultation, reviewing protected areas proposals currently in consideration by government.

4. Evaluation of environmental impacts and geohazards

The MGS has been generating 3-D geological maps since early 2000, using data from Manitoba's water well, oil well and stratigraphic drillhole databases; large lake bathymetry; Lake Winnipeg seismic survey; and surface datasets such as the provincial surficial geology compilation map series. The modelling methodology that the MGS employs uses a series of cross-sections, each of which represents a 5 km wide, east-west transect across the province. These cross-sections include all data available within 2.5 km from the line of the section. The vertical sections have been posted to the MGS website and have proven useful for educational purposes, to resolve complex aquifer issues and to define 'base of groundwater protection' (the depth to which oil wells are cased) on behalf of Manitoba's Water Branch.

Manitoba has approximately 20 abandoned or orphaned mines, one of which is the Gunnar gold mine, located within the Archean Rice Lake greenstone belt in southeastern Manitoba. This site was chosen by researchers at the University of Manitoba to study how common plant species interact with remnant soil contaminants. The objective is to more confidently select native plant species compatible with the given soil situation, ultimately increasing the likelihood of successful reclamation.

5. Development of products that respond to clients' increasing needs for digital information

The digital mineral deposits and occurrence database for Manitoba has been available on the MGS GIS Map Gallery website since November 2008. The database summarizes all of the information contained in the reports of the Mineral Deposit Series. Work will continue on new data entry to incorporate recently released work described in assessment files. The updates from the past year will be added to the GIS Map Gallery in a November 2011 release. Addition of new occurrences and updating of existing occurrences with files that become nonconfidential are continuing processes.

The Mineral Resources Division is in the process of redesigning the Map Gallery Internet mapping tool to use newer and more versatile Windows-based software, increase the quality of the presentation and improve the stability of the service. Geoscience Information Services has devoted considerable time and effort to convert from the old technology to the new system, which will go live in the second half of 2012.

Geoscience Information Services continued support for the compilation of sub-Phanerozoic Precambrian geology. GIS support is a critical component of this project because of the large number of drillhole descriptions and chemical analyses available for the compilation.

The geophysical dataset compilation project involves a collection of the nonconfidential geophysical datasets that were filed for assessment purposes. This ongoing project focuses on expanding the number of datasets and converting the data presentations to standard format, with particular emphasis on converting data to a standard map projection and datum. The compilation will include more than 200 geophysical datasets when the new Map Gallery is made available in late 2011. These data presentations are available for free download.

6. Collaboration with industry, Federal, university and other provincial agencies

The MGS is engaged in many partnered initiatives, including contributions from the federal government, the mineral industry and several Canadian universities. These partnerships provide the MGS access to expertise and technologies that enhance our ability to provide a state-of-the-art geoscience database for Manitoba. These programs facilitate the training of future geoscience professionals, which in 2010–2011 included one Post-Doctoral Fellow, two Ph.D. candidates, two M.Sc. candidates and one B.Sc. Honours thesis project.

A number of new partnered projects have been initiated or are in advanced planning stages for 2011–2012. Some, such as a shale gas initiative with Manitoba Hydro and the University of Calgary, branch into new and important fields of research. Two new collaborative research projects between industry, universities and the MGS are in the planning stages. The first, a Ph.D. study at Laurentian University with financial support of Alexis Minerals Corporation, will involve a structural and stratigraphic study in the Snow Lake area. The second, with industry support by Hudson Bay Exploration and Development Company Limited, will include at least one Ph.D. study on the Lalor deposit and hostrocks.

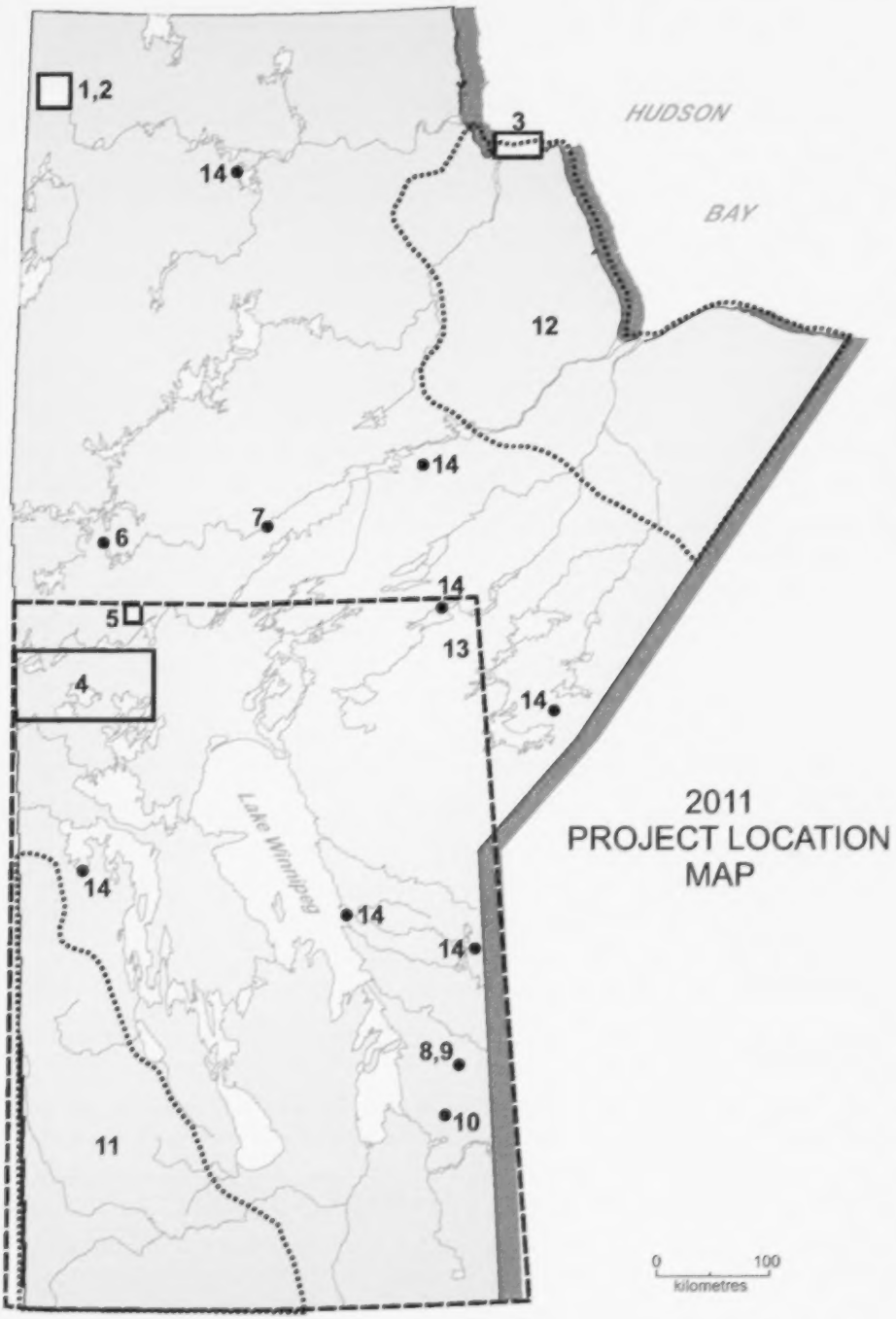
A study of certain bentonites in Manitoba was undertaken by researchers at American universities, in collaboration with MGS. Bentonite, an altered volcanic ash, is unique compared to other rock-forming components in that it can catalyze the oligomerization of activated nucleotides to form RNA. It is proposed that the origins of life on Earth (and possibly on Mars) were facilitated by the storage of the genetic code within RNA, thus catalyzing first life on Earth. In southern Manitoba, one excellent catalyst and one good catalyst have been recognized from the Odanah Member of the Pierre Shale. Additional testing will be done in an attempt to recognize if the Odanah Member bentonite consistently provides good to excellent catalytic properties and to determine if these properties may be attributed, in part, to the underlying Paleozoic basement rock.

7. Providing minerals industry information through outreach activities

In 2010–2011, the MGS published the annual Report of Activities, two open file reports, one geoscientific report, three preliminary maps and six data repository items. Most of the publications continue to be offered in hard copy and on CD-ROM or DVD for purchase through Publication Sales, and in electronic format for free download from the Mineral Resources Division website.

The MGS contributed to the development of the new CanGeoRef database by facilitating the population of the Manitoba portion. The MGS Library Services Co-ordinator participated as a member of the Steering Committee and provided publication data for the database and is helping promote the release of the new Canadian geoscience literature database at the 2011 Manitoba Mining and Minerals Convention in November.

Manitoba Geological Survey mineral-education outreach initiatives included the 'Manitoba Rocks!' program, which was delivered at the Manitoba Mining and Minerals Convention, at the Children's Hospital and during Provincial Mining Week, which drew 2700 visitors. 'Manitoba Rocks!' offers free hands-on activities developed to complement the Earth-sciences curriculum and increase public awareness of the importance of Manitoba's mineral resources and mining industry.



2011
PROJECT LOCATION
MAP

Map Legend **Location of Projects 2011/2012**

1. Far North Geomapping Initiative: bedrock geology of the Snyder Lake area, northwestern Manitoba
2. Far North Geomapping Initiative: Quaternary geology of the Snyder–Grevstad lakes area, far northwestern Manitoba
3. Far North Geomapping Initiative: palimpsest bedrock macroforms and other complex ice-flow indicators near Churchill, northern Manitoba
4. Comprehensive geological and geochemical database for the sub-Phanerozoic Flin Flon Belt, west-central Manitoba
5. Geochemistry and updated geology of the Squall–Varnson lakes area, west-central Manitoba
6. The Burntwood Lake alkali-feldspar syenite revisited, west-central Manitoba
7. Geological investigations in the Manasan Falls area, Thompson Nickel Belt, Manitoba
8. Detailed geological mapping of the Rice Lake mine trend, southeastern Manitoba: stratigraphic setting of gold mineralization
9. Detailed geological mapping of the Rice Lake mine trend, southeastern Manitoba: structural geology of hostrocks and auriferous quartz-vein systems
10. The Mayville mafic–ultramafic intrusion in the Neoarchean Bird River greenstone belt, southeastern Manitoba: preliminary geochemical investigation and implication for PGE-Ni-Cu-(Cr) mineralization
11. Geochemistry and mineralogy of Cretaceous shale, southwestern Manitoba
12. Stratigraphy of three exploratory oil-well cores in the Hudson Bay Lowland, northeastern Manitoba
13. Three-dimensional geological mapping in Manitoba: overview and products
14. Community liaison program: bridging land-use perspectives of First Nation communities and the minerals resource sector in Manitoba

18-5(a) Manitoba Geological Survey

Expenditures by Sub-Appropriation	Actual 2011/12 $	Estimate 2011/12 FTE	Estimate 2011/12 $	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	3,763	55.10	3,830	(67)	
Total Other Expenditures	2,997		2,107	890	
Total Expenditures	**6,760**	**55.10**	**5,937**	**823**	*1*

1. Aboriginal Consultations

MINES

OBJECTIVES

The Mines Branch administers legislation governing the disposition of mineral rights (permits, claims and leases), exploration, development, production of the province's non-fuel mineral resources and rehabilitation of mines and quarries. The Branch comprises three sections; Mining Recording, Mining Engineering and Inspection, and Assessment.

ACTIVITIES/RESULTS

Other activities performed by the Mines Branch staff included the continuing compilation of an inventory of the provinces aggregate resources and administration of provincial land-use policies that deal with the conservation of mineral resources. The Branch continues it's representation on the sub-committee of IGWG on Mine Environment Neutral Drainage (MEND) Committee, the Green Mining Initiative (GMI), the Federal/Provincial Technical Committee on Mineral Statistics, the Provincial/Territorial Mining Rights Committee and National Orphaned and Abandoned Mines Initiative (NOAMI). Branch staff participated in a number of technical seminars, conferences and mine rescue competition. Staff are also involved in supporting Aboriginal Consultation for issuance of mineral dispositions and work permits.

Under the Orphan and Abandoned Mine Site Program, total expenditures for FY 2011/12 were $35.1 million. In 2011, rehabilitation work was focused on large projects in Sherridon, Lynn Lake and God's Lake. To date rehabilitation work has been completed at 19 high hazard sites.

Mining Recording Section

The Mining Recording office is located in Winnipeg with a Claims Inspector in Flin Flon.

The Mining Recording Office maintains up-to-date records of mineral dispositions and leases and all legal transactions that relate to mineral dispositions and leases as required by legislation. Computer terminals are available for the general public to access disposition information on mining claims and permits, quarry leases, quarry surface leases, quarry exploration permits and potash dispositions The Mines Branch is currently in the process of determining the feasibility of online submissions for all disposition types and map staking.

The Mining Recording Section processes applications for mineral dispositions, leases, monitors and inspects the activities of disposition and lease holders for compliance with requirements of *The Mines and Minerals Act* and Regulations, and collects fees, rentals, royalties, rehabilitation levies, taxes and cash security deposits payable under the Regulations. The total revenue collected by the Section during the fiscal year 2011/12 was $5,358,478 and the rehabilitation levy collected on the removal of aggregate material was $1,700,134 for the same period.

During the calendar year 2011, 410 mining claims and 20 mineral exploration licenses were recorded covering a total of 339,189 hectares. Concurrently, 95 quarry mineral leases, 889 casual quarry permits and 786 registration certificates for private pits and quarries were also issued during the same period. Details of the types of mineral dispositions and leases issued and in good standing in 2011 are shown on the following page.

The Mines Branch has introduced a system called iMaQs (Integrated Mining and Quarrying System) to enable clients to submit applications and manage their dispositions online. iMaQs allows registered users to submit and pay for their transactions online. Registered users are able to access their information and manage activities 24 hours a day via internet access. iMaQs is available to external clients to apply for and manage mining claims, mineral leases, surface leases, mineral exploration licences and private pit registrations. Still under development is the ability for external clients to apply for and manage casual quarry permits, quarry leases, quarry exploration permits, potash exploration permits and potash leases.

Crown - Aboriginal Consultation

The Mineral Resource Division is responsible for Crown-Aboriginal consultation on mineral exploration licences and on work permits which are issued by Manitoba Conservation for mineral exploration and development activities and. The Division is also the lead agency for Crown-Aboriginal consultation on Environment Act licences for mine developments. The Division has established Crown-Aboriginal consultation procedures to guide the consultation processes.

Before a company can carry out exploration activities on a mineral disposition or lease, they have to obtain a work permit issued by the local regional office of Conservation. The majority of work permits are approved for issue by Conservation within 60 days. Once an application for a work permit is received, it is forwarded to the Mines Branch (IEM) who are responsible for carrying out Crown- Aboriginal consultation with First Nations who's treaty and Aboriginal rights may be adversely affected by the activities.

Work Permit Applications Processed by Mineral Resource Division:

Number of Work Permit Applications Processed	84
Number of First Nations Bands Consulted	18
Average number of days between receiving a Work Permit Application and giving Conservation the okay to issue the permit	53
Applications withdrawn by Company/Individual	0

MINERAL DISPOSITIONS ISSUED EACH CALENDAR YEAR 2008 – 2011

	2008		2009		2010		2011	
	No.	Hectares	No.	Hectares	No.	Hectares	No.	Hectares
Mining								
Mining Claims	353	78,172	185	45,103	341	73,574	410	85,952
Mineral Exploration Licences	29	554,103	20	332,589	4	80,685	20	253,237
Mineral Leases	-	-	-	-	-	-	-	-
Quarrying								
Leases	61	2.556	88	5,029	146	7,326	95	6,832
Exploration Permits	38	47,729	2	1,230	10	56,884	15	3,480
Casual Quarry Permits	777	-	789	-	852	-	889	-
Peat*								
Leases	-	-	12	2,544	14	1,995	32	5,037
Exploration Permits	-	-	-	-	-	-		
Coal – Exploration Permits	3	30,135	22	39,380	10	56,884	13	3264
Private Aggregate Registration Certificates	753	-	754	-		772	786	

MINERAL DISPOSITIONS IN GOOD STANDING AT CALENDAR YEAR END 2008 - 2011

	2008		2009		2010		2011	
	No.	Hectares	No.	Hectares	No.	Hectares	No.	Hectares
Mining								
Mining Claims	6,243	1,622,770	5,953	976,011	6,142	989,444	5,783	905,218
Order-In-Council Leases	3,653	120,562	3,653	120,562	3,653	120,562	3,653	120,562
Mineral Exploration Licenses	107	2,104,812	97	1,797,707	75	1,395,011	55	797,545
Mineral leases	253	23,416	253	23,416	253	23,416	252	23,532
Potash								
Leases	1	5,787	1	5,787	1	5,787	1	5,787
Exploration Permits	4	148,726	3	127,431	3	127,431	3	127,431
Quarrying								
Leases	913	49,129	987	54,061	1,131	63,503	1154	66,130
Exploration Permits	12	101,210	9	2,438	33	178,804	32	59,868
Peat*								
Leases	150	23,238	163	25,842	173	27,663	202	31,977
Exploration Permits	1	1,018	-	-	-	-	0	0
Coal – Exploration Permits	3	30,135	26	88,758	19	74,280	30	59,660
TOTAL	11,340	4,280,803	11,145	3,222,013	11,483	2,942,398	11,165	2,197,710

*A two year moratorium on new peat leases was enacted in June of 2011.

Mining Engineering and Inspection

The primary purpose of the Mining Engineering and Inspection Section is to facilitate and encourage sound exploration, mining and rehabilitation practices in the province consistent with the principles of sustainable development and in compliance with *The Mines and Minerals Act*. It also provides land management and advisory services in support of provincial legislative and regulatory land use and resource management initiatives.

Staff monitor mining activity in Manitoba to ensure compliance with requirements under *The Mines and Minerals Act* including licenses, registrations, permits, leases, closure plan submissions, royalty/levy charges on production, and environmental operation standards. Inspection staff conducted field inspections to ensure mining compliance at quarry lease and casual quarry permit locations, private pit/quarry operations and site rehabilitation projects.

Three new projects were granted "new mine status" and one advanced exploration project was awarded permission to proceed.

Several mine closure plans for operating metal mines, inactive mines and for industrial mineral quarries were reviewed by Mines Branch staff and the closure plans were approved by the Director of Mines.

The Mines and Minerals Act, proclaimed in 1992, introduced a program to address the rehabilitation of pits and aggregate quarries in the province. Aggregate producers pay an annual levy based on the tonnes that they've produced and this money is set aside in a fund to be used for pit and quarry rehabilitation. On the basis of aggregate production from private and Crown lands in fiscal year 2011/12 approximately $2.3 million was contributed to this Quarry Rehabilitation Fund, while 104 rehabilitation projects were completed at a cost of $2.2 million. The total number of projects completed since 1992 comprise approximately 8,708 hectares of land rehabilitated. All the work has been undertaken through private equipment rental agreements or tendered contracts with private operators, administered and monitored by branch inspection staff.

Orphan and Abandoned Mine Site Program

Under the Orphan and Abandoned (O/A) Mine Site Program, total expenditures for FY 2011/12 were $35.1 million. The rehabilitation work focused on large projects in Sherridon, Lynn Lake and God's Lake. To date 19 of 31 high hazard sites have been rehabilitated. In 2011 rehabilitation work was completed on one of the twelve remaining sites with the majority to be completed in 2012. Work continues on four high risk sites - Sherridon, Lynn Lake, God's Lake and Snow Lake with the majority of work scheduled for completion in 2012/2013.

Significant progress was made under the O/A Mine Site Rehabilitation Program in 2011/12 with the following work carried out:.

Farley Tailings Management Area in Lynn Lake – This rehabilitation work is cost shared 50% with Viridian. A water treatment system was installed and commissioned. A dam inspection was completed which identified additional engineering and construction work to be carried out. Work at the El Mine was completed and the project is now in a 3 year monitoring program.

God's Lake – A contract was awarded for site cleanup, the primary contractor employed an Aboriginal contractor and 90% of all work was carried out using labour from God's Lake First Nation. The project is 90% complete and remaining work will be completed in 2012/13. Work on the Elk Island air strip was delayed with the early closing of the winter roads and remediation work will be completed in 2012/13.

Sherridon Tailings – Rehabilitation work has been ongoing since 2009 with significant progress in 2011. This Project is planned for completion in 2012.

Snow Lake – Work continued in 2011 and is substantially complete. An agreement was signed between Manitoba and BacTech to look at the feasibility of reprocessing of tailings to treat arsenic and recover gold using the company's proprietary bioleaching technology.

Sustainable Land Planning Services

Manitoba has enacted several land use and resource management acts targeted at managing land and natural resources as creating economic development opportunities and protect the environment. The mineral resource/land management program facilitates mineral resource and land stewardship in the various provincial and municipal land and resource use management planning processes. Program objectives for resource stewardship are to help facilitate the provincial interest in natural resources, manage surface and Crown mineral land, and accommodate environmental management. Program goals are directed at facilitating responsible mining and resource development, protecting the environment and the province's ecosystems, minimizing land and resource use conflicts and providing high quality land and resource management planning and advisory services to planning authorities, industry and other land management stakeholders.

Program goals also include providing secretarial support to the Surface Rights Board and assisting Manitoba in the transition to sustainability. The implementation of the program is as follows:

Crown Land Planning

The management, classifying and policy development for Crown land in Agro-Manitoba is the responsibility of the Bloc Panning Committees. Major activities of the Crown land management process include developing and implementing Crown land plans, developing Crown land use codes and policy and supervising land use on Crown lands through an integrated management process. Other significant land management activities include evaluating Crown land sale and use proposals, providing technical advice and information on resource management activities and facilitating land designation under various resource management acts. Land management provides planning services related to:

- Crown land sales
- Crown land exchanges
- Crown land planning and development
- allocation of use
- integration of use
- protection, conservation and sustainability of provincial natural resources
- designation of Crown land for provincial parks, ecological resources, wildlife management areas, etc.

All land sales, exchanges, land use codes and other administrative requirements for Crown land planning and management are reviewed and commented on by Land Management.

In addition to the above, Manitoba has initiated a new process for provincial Crown land management which includes the Assistant Deputy Ministers and Deputy Ministers land use committees. Land Management also provides technical and policy support to these new land management processes.

Municipal Planning

The Planning Act governs land use planning and development in Manitoba. The legislation provides municipalities and planning districts with the authority to create and adopt a Development Plan and Zoning By-law. Land management is actively involved in providing the legislatively based land planning processes and stakeholders with technical products, advice and technical positions on land planning matters within the context of facilitating the public interest. Support services include reviewing policy and development proposals and ensuring that the province's non-renewable mineral resources are not sterilized by development, preparing mineral resource management technical reports and maps that help facilitate mineral resource management, and providing professional planning advisory assistance to the subdivision review and conditional use processes. Other significant planning services include policy reviews of plans and zoning by-laws, public consultation and supporting planning appeal Boards. Land Management is responsible for the interpretation and application of Provincial Land Use Policy #8, MR

81/2011. The Provincial Land Use Policy for minerals has been revised to strengthen its intent and provide clarity concerning protecting mineral resources and facilitating responsible development. The regulation has recently been vetted through Interdepartmental Review Committee and was proclaimed in June 2011. Aggregate resources are becoming increasingly scarce in the Capital Region and special emphasis has been placed on designating critical resources for future mining activity, and ensuring that the resources are viable for infrastructure renewal. Lands containing moderate to high quality mineral deposits are designated for mining activity and protective for future extraction. Development pressure from residential development has created a serious transition from rural and agriculture to a semi-urban environment. Permitting for new sources of aggregate has become a serious land use conflict.

Sustainable Land Planning Services

	2009	2010	2011
Reviews of new Development Plans and by-law amendments to ensure that mineral resources are not sterilized	121	135	138
Municipal Boundary reviews including annexation or expansion	3	3	2
Review of new zoning by-laws and amendments	192	142	163
Review of closure of roads and public reserves	45	54	30
Review of conditional use applications for the establishment of mining operations	16	22	15
Review of proposed live stock operations	8	9	4
Provide land planning services to 46 planning districts and 144 municipalities			

Land Use Assessment

Land Management provides technical support and advice to many land use resource reviews and assessment processes. Land use proposals are assessed to ensure that the province's mineral resources are not sterilized by development and to ensure that land use conflicts are identified and mitigated. Land use proposals that are assessed are subdivision applications, Crown land sales, zoning and policy memorandum as well as Crown surface encumbrances with the view of documenting land use, tenure and environmental conflicts. This activity directly supports interdepartmental and intergovernmental planning and resource management activities within an integrated management process. A total of 1889 land use proposals were assessed for potential land use conflicts to ensure that the Province's mineral resources were not sterilized by surface development. A new policy and procedure and related process was created and implemented for mineral access rights. In addition, Land Management has partnered with development proponents in large complex surface, mineral and sand and gravel rights ownership to document and interpret various tenures and to help resolve ownership concerns including potash and northern mining communities.

Sustainability

The Sustainable Development Act was proclaimed on July 1, 1998. The Act creates a legal framework through which sustainable development will be implemented in the public sector and encouraged in private industry and society. In addition, the principles of sustainable development have been codified in *The Mines and Minerals Act* and provide the legal framework for implementing sustainability on Crown mineral land. An implementation process has been recently initiated and approved by Manitoba, and land management is currently providing technical support to many different provincial working groups and processes. Technical support is provided to COSDI, Codes of Practice, sustainability reporting, and financial management. Other important initiatives include sector based strategies under the provincial land and water initiative. Land Management also provides technical support to the Sustainable Development Innovations Fund by reviewing technical reports and participating in the approving committee. The principles of sustainable development are being codified into Municipal Plans, Crown Land plans and Zoning By-laws. The sustainability indicators report for mining activity was prepared in the calendar year. Technical support for the Green Mining Initiative was also facilitated.

Protected Areas Initiative

Manitoba has initiated a program to protect representative landscapes and ecosystems from logging, mining and hydro development. Mines Branch plays an important technical role in the process by legally withdrawing Crown mining rights from mineral exploration, development and extraction to protect critical habitat from mining activities. It also provides land tenure information and other support to the stakeholder approval process. A new policy and process for protecting Rank 1 Crown mineral rights from exploration and development was implemented. The intent is to provide comprehensive legal security to the protected lands and ensure that they are protected until the stakeholder consultation process is completed. Some of the land requests for protected areas status have been re-assigned to the Bloc Planning Committee.

Treaty Land Entitlement

Progress was made towards meeting provincial obligations for Treaty Land Entitlement, Northern Flood Agreement and Grand Rapids Forebay Agreement in accordance with these legal agreement requirements. Land selections containing valid mineral dispositions in good standing were documented and technical support to the selection process was provided. Staff participated in resolving tenure conflicts associated with land selections and also provided procedural and policy advice. Eighteen selection sites were ratified covering a total of 1890 acres.

Public Outreach

Land Management also provide educational and outreach services facilitating sustainability, mineral resource management to various land management boards, municipal councils, industry and the public. Public outreach services include presentations, workshops, and internet access to land management issues, policies, practices to ensure that there is an opportunity for public involvement and discussion regarding resource management issues. Activities include oral and poster presentations at conferences, workshops, public meetings and direct stakeholder consultations concerning mineral resource management. This activity helps facilitate informed decision making by land management boards, industry, and the public. Highlights for 2011 include providing public outreach to Manitoba's cottage lot program, assisting Manitoba prospectors and First Nation groups in land tenure issues, and providing technical support to Watershed Management Boards. This year special emphasis has been placed on conducting workshops on land planning and mineral tenure with stakeholders at the Manitoba Planning Conference. In addition, a new strategic partnership has been created to improve mineral extraction within forestry areas leading to an improved integrated management framework where all values are considered and addressed.

Assessment Section

The Section receives and evaluates reports of required work submitted under *The Mines and Minerals Act* to ensure compliance with legislation and acceptable industry standards. At first confidential, these reports are eventually transferred to the non-confidential assessment library open to the public. These reports are indexed, microfilmed and scanned. Clients can view reports in our office or on the website.

Copies can be obtained by printing them directly from the website or ordering them from the Assessment Library. These reports are available on line, on paper, microfilm or compact disc.

The Section also provides advice to the Review Panel and Administrator of the Mineral Exploration Assistance Program on the merits and validity of the projects, acceptance of final reports and recommendations on payment or non-payment of grants.

The Section monitors mining exploration activities in the province and contributes to the preparation of reports on industry activity. It also acts as liaison between Natural Resources Canada and the mining industry for the gathering of statistics on exploration and production.

At the request of the Manitoba Securities Commission, the section reviews technical submissions on mining projects to ensure that they conform with the reporting standards set out in National Instrument 43-101 - Standards of Disclosure for Mineral Projects. No projects were reviewed during the past year.

	2008	2009	2010	2011
Reports of work added to assessment library	150	109	125	126
Reports transferred to non-confidential status	124	106	99	119
PRIVATE SECTOR:				
Visits	42	47	41	15
Reports examined	240	111	50	58
Reports duplicated for clients	181	32	8	36
CD'S duplicated for clients	23	2	1	0
DEPARTMENTAL STAFF:				
Reports examined	133	14	13	2
Microfiche created/duplicated for Winnipeg and Northern Offices	379	46	100	0

Note: The decline in office visits and other activities in the private sector is due to the fact that all information is now available on-line.

18-5(b) Mines

Expenditures by Sub-Appropriation	Actual 2011/12 $	Estimate 2011/12 FTE	Estimate 2011/12 $	Variance Over (Under)	Expl. No.
Total Salaries and Employee Benefits	1,273	26.00	1,312	(39)	
Total Other Expenditures	22,996		531	22,465	
Total Expenditures	**24,269**	**26.00**	**1,843**	**22,426**	*1*

1. Environmental Liabilities

PETROLEUM

OBJECTIVE

To provide for and encourage the safe and efficient development of Manitoba's oil and gas resources in accordance with the principles of sustainable development.

ACTIVITIES/RESULTS

Manitoba's oil and gas sector, though small by national or international standards, is a significant component of the provincial economy particularly in the southwestern part of the province.

In 2011, Manitoba produced 2,359,246 cubic metres or 14.8 million barrels of oil having a total value of approximately $1.36 billion breaking all previous investment, drilling, and production records. Since there are no refineries in Manitoba, all of the province's production is exported through the Enbridge pipeline system to refiners in Ontario and the US.

In 2011, the petroleum industry spent $1.2 billion in Manitoba to explore for and develop Manitoba's oil and gas resources, while operating over 3,363 wells and transporting crude oil within the province.

The Daly-Sinclair Field located southwest of Virden, continued to be expanded. As of December 31, 2011, the field had over 1794 producing oil wells. In 2011, Daly-Sinclair contributed 46.2% of the total provincial production.

The Waskada Field experienced continued drilling during 2011. Originally developed in the early 1980's using vertical technology, this field is now being redeveloped and expanded using new horizontal technology and currently accounts for 34.8% of Manitoba's 2011 production. Since 2008, oil production has risen by 577% to over 14,140 barrels of oil per day. In 2010 EOG received approval to construct an 8" pipeline from Waskada to Cromer to transport the extra oil production. The line which became operational in January 2011 is currently handling 7,600 barrels of oil per day and has a maximum capacity of 40,000 barrels of oil per day. EOG constructed a gas plant at Waskada 16-21-1-25 WPM in 2011. The plant recovers propane, butane and condensate from the solution gas before it is flared.

It is estimated that the petroleum industry in Manitoba provides direct and indirect employment for approximately 3,550 Manitobans.

In 2011/12, royalties, production taxes and revenue from the administration of Crown owned oil and gas rights, fees and sundry added $48.0 million to the Provincial Treasury. Significant revenues were also collected by the province through income taxes, retail sales tax, corporation capital tax, payroll tax and fuel taxes. In addition, the industry paid approximately $11.4 million in property taxes to the various municipalities where oil wells and facilities are located.

The Petroleum Branch administers The Oil and Gas Act and related regulations governing the exploration, development, production, transportation and storage of crude oil and natural gas. The branch is also responsible for The Oil and Gas Production Tax Act. Additionally, officers and inspectors of the branch are designated as Workplace Safety and Health Officers under The Workplace Safety and Health Act with respect to oilfield operations. The inspectors also act as industry's first point of contact with regard to oil field related environmental issues. .

The branch continued maintenance of its GIS Web-enabled Petroleum Resources map. The map covers southwestern Manitoba including Townships 1-22; Ranges 19-29 W1 and shows provincial Crown oil and gas rights mineral ownership, Crown oil and gas dispositions, wells, oil and gas facilities, field boundaries, topography orthophotos and allows for download of the branch's technical well files. The map is available on the Petroleum website at www.gov.mb.ca/petroleum.

The branch participated in the following consultation and outreach activities during 2011/12:

- The 19th International Williston Basin Petroleum Conference (May 1-3, 2011) in Regina, Saskatchewan. The Mineral Resources Division presented an update of Manitoba oil and gas exploration and development activity at this forum and met with industry clients.
- The Canadian Association of Petroleum Geologists Annual Convention (May 3-15, 2011) in Calgary, Alberta.
- The Canadian Association of Petroleum Land Administration & the Canadian Association of Petroleum Landmen's Information Exchange training session providing information on conducting oil and gas business in Manitoba on November 14, 2011 to members of these associations.
- Round table meetings on July 15, 2012 with key companies investing in Manitoba's oil resources.
- Presented at a SPE Conference on November 17, 2011 regarding new developments and regulatory considerations for the handling of multistage hydraulic fracturing.
- Canadian Flare & Venting Regulators Forum Annual meeting June 15-16, 2012 to review current & future regulation needs for flaring and venting.

The following Informational Notices were issued by the Petroleum Branch in 2011:

- Informational Notice 11-1: Fee Changes - January 5, 2011;
- Informational Notice 11-2: Schedule of Public Offering of Manitoba Oil and Gas Rights – March 23, 2011;
- Informational Notice 11-3: Mandatory Digital Submission of Multi-Spacing Unit Production Allocation – April 29, 2011;
- Informational Notice 11-4: Annual Report Abandonment Reserve Fund

Administration and Geology Section

Administration

Administration is responsible for collection of petroleum revenues and administration of Crown owned oil and gas rights. The section collects annual lease rentals, Crown oil royalties and freehold oil taxes, conducts sales of Crown oil and gas leases and exploration reservations and processes lease renewals and extensions. The section is responsible for administering provisions of the Crown Disposition Regulation, the Crown Royalty and Incentives Regulation, the Oil and Gas Lease Agents Regulation and portions of the Drilling and Production Regulation under The Oil and Gas Act. The section also administers The Oil and Gas Production Tax Act and Regulation.

Crown Oil and Gas Rights - Four Crown oil and gas lease sales were held in 2011/2012. Two hundred and twenty four Crown Leases covering 25,268 hectares were sold for a total of revenue of $20,048,197.57. Revenue collected from Crown oil and gas lease sales was up from the 2010/2011 revenue by $8,802,947.70

Since 1979, the province has collected over $85.7 million from the disposition of Crown Oil and Gas Rights. As of December 31, 2011, 119,693.7 hectares of Crown Oil and Gas Rights were under disposition. Compared to 2010, the total area under disposition has increased by 7.8%.

In 2011, the section processed 91 lease renewals and 38 lease extensions, 115 lease surrenders, 47 transfers of dispositions and 47 oil and gas lease agent renewals and registrations. The section also issued 228 new leases and conducted 20 private sales.

Data Collection - The section collects monthly oil production data and data on the disposal and injection of salt water for all active wells in the province. As of December 31, 2011, there were 4,879 non-abandoned wells in Manitoba. Digital production, logs, technical information and injection histories are available for all wells.

During 2011/12, the section collected $48.0 million from the petroleum industry. This revenue comprised $13.8 million in Crown oil royalties, $13.2 million in freehold oil taxes and $21.0 million from administration of Crown Oil and Gas Rights, fees for well licences, battery operating permits, geophysical licences and oil and gas lease agent registration and publication sales. The revenue collected in 2010/11 was $30.4 million.

Manitoba Drilling Incentive Program, (1992-2013) - The Manitoba Drilling Incentive Program provides licensees of wells drilled after January 1, 1992 and before January 1, 2014, a holiday oil volume of production that is exempt from Crown royalties or freehold production taxes. The holiday volume earned is a function of oil price and location of the new well with respect to other wells.

Holiday oil volumes of up to 20,000 cubic metres can be earned by a new well.

In 2011, 570 wells earned an average holiday oil volume of 9,446 cubic metres, bringing the total number of wells with a holiday oil volume in the program to 3,411 as of December 2011.

Any horizontal well drilled prior to January 1, 2014 receives a holiday oil volume of 10,000 cubic metres. Five hundred and thirty six horizontal wells were drilled in 2011.

Effective November 11, 1995, a marginal well where a workover is completed prior to January 1, 2014 earns a 500 cubic metre holiday oil volume. A marginal well is defined as a well that, over the previous 12 months, has been shut-in or has an average production rate of less than 3 cubic metres per operating day. Major workovers include the re-entry of abandoned wells, deepening or recompletion of existing wells from one pool to another and the repair of the casing in a well. One well earned a holiday oil volume under the program in 2011.

The Manitoba Drilling Incentive Program provides for a portion of the oil produced from a new waterflood or other enhanced oil recovery (EOR) project implemented after April 1, 1999, which is attributed to an increase in reserves, to qualify as third tier oil for royalty/tax purposes. A portion of production from 12 approved EOR projects have qualified as third tier oil.

Newly drilled injection wells, or wells converted to injection within an approved EOR project, qualify for an "injection well incentive" and a one-year royalty/tax exemption. As of December 31, 2011, a total of 110 wells had qualified for an "injection well incentive" since the inception of the program. A total of 89 wells have completed the injection incentive period.

Performance Deposits and the Abandonment Fund Reserve Account – The section administers trust accounts for performance deposits and the Abandonment Fund Reserve Account. Applicants for licences or permits issued under The Oil and Gas Act are required to submit a performance deposit to ensure operations comply with the Act and regulations. These deposits are held in trust until required rehabilitation work has been completed. In 2011/12, approximately $2.9 million in cash, term deposits and letters of credit were administered.

The Abandonment Fund Reserve Account is established under The Oil and Gas Act. Non-refundable levies on geophysical and well licenses, transfer of well licenses, battery operating permits and inactive wells are deposited in the account. The account is used as a source of funds to operate or abandon a well or facility that is in non-compliance with the Act, where the licensee of the well or facility fails to do so. The account can also be used to rehabilitate the site of an abandoned well or facility or to address any adverse effect on property caused by a well or facility. Any expenditure from the account on behalf of a licensee automatically creates a debt of the licensee to the Crown, recoverable in court.

An annual report of activities relating to the account to March 31, 2012 is available on the Petroleum Branch website.

Abandonment Fund Reserve Account Activity

Opening Balance (April 1, 2011)		**1,160,199.33**
Deposits		
Levies and Penalties	331,250.00	
Interest	12,108.11	
Penalty of Inactive Well Levy	750.00	
Recovery of Expenditures	0	
Total Deposits		**344,108.11**
Expenditures and Refunds		**13,064.81**
Closing Balance (March 31, 2012)		**1, 491,242.63**

Geology:

Geology prepares reports on Manitoba's petroleum geology and hydrocarbon potential to encourage and assist in the exploration and development of the provinces oil and gas resources. A system for the designation of field and pool boundaries is maintained and updated annually. As of January 1, 2011, Manitoba had 13 designated oil fields and 184 designated active oil pools.

In addition, Geology provides consultation and assistance to the public and the petroleum industry.

Accomplishments in 20011/2012 include:

- Continued enhancement of the geological formation tops database as part of the Manitoba Oil and Gas Well Information System (MOGWIS). In 2011, a total of 162 new wells were added to this database.
- 468 wells were assigned field and pool codes in 2011.
- Assigned HOV to 631 wells in 2011.
- Updated Manitoba's Field and Pool Boundaries for 2010.
- Prepared multiple geological assessments for protected areas.
- Presented Manitoba's petroleum geology to companies and the public.
- Assessed pipeline applications, unit applications, salt water disposal and well licence transfer guidelines.
- Reviewed stratigraphic core and horizontal logging Measurement While Drilling sampling requirements.
- Represented the Petroleum Branch in departmental Workplace Safety and Health meetings.
- Answered inquiries from the industry, public and branch staff.
- Reviewed and approved requests for core sampling and analysis.
- Attended Petroleum Registry of Alberta meetings.
- Attended a workshop with the Geological Survey of Canada to estimate reserves of shale gas.

Engineering and Inspection Section

Engineering:

Under the authority of the Drilling and Production Regulation and the Geophysical Regulation, Engineering processes drilling licenses, geophysical licenses and applications to re-complete, suspend, or abandon wells. It also issues permits for all oil and gas facilities. In 2011/12, a total of 681 drilling licenses and 25 geophysical licenses were issued. In addition, 112 technical well operations applications were processed.

The Petroleum Branch processed and approved 3 waterflood enhanced oil recovery projects in 2011/12. Tundra Oil & Gas created Sinclair Unit No. 6, Sinclair Unit No.7 and Sinclair Unit No. 8.

The Petroleum Branch also processed and approved 4 new pipeline applications totalling approximately 38km of new pipeline infrastructure for Manitoba. Three are crude oil lines that connect two existing facilities and one is a new natural gas liquids terminal (NGL) and connecting pipeline that joins into the Enbridge Westspur NGL line.

Information and advice are provided to the petroleum industry and the public at the Winnipeg, Virden and Waskada offices.

Inspection:

Inspection enforces regulations under The Oil and Gas Act related to geophysical, drilling, production, and pipeline operations. Specifically, the inspectors license and inspect field facilities, investigate complaints, witness specific operations, and interpret and communicate departmental or regulatory requirements to industry personnel. Inspectors are also responsible for carrying out safety and health inspections of petroleum industry operations under The Workplace Safety and Health Act. District offices are located in Virden and Waskada.

More than 223 wells and oil and gas facilities in the province were inspected at least once during the year. A total of 110 non-compliance orders were issued in 2011/12 for wells and oil and gas facilities not in compliance with the Act. A total of 1,179 flow line applications were processed and 323 excavation permits issued.

Inspectors visit all abandoned well sites to ensure that the approved abandonment procedures have been followed. During 2011/12, 123 old abandoned sites were visited and 37 Certificates of Abandonment were issued, allowing for the release of wells from performance deposit requirements. The unit also manages a program of environmental protection involving the rehabilitation of all oil or salt water spill sites. During 2011/12, 80 new spills and 48 old spill sites were inspected. Thirteen spill sites were fully rehabilitated and released from the branch's rehabilitation program.

More information on spills is presented in the Petroleum Industry 2011 Spill Statistics and Report available from the branch

Digital Information Services Section

Digital Information Services is responsible for development and maintenance of computer systems within the branch. These systems include a diverse collection of activities such as web services, database maintenance, GIS, distribution of data to brokers, application development, document images and mapping services.

Digital Information Services has acted as the lead on conducting an opportunity assessment with the Petroleum Registry of Alberta. The Registry allows producers to digitally submit all information related to the tracking of volumetric oil and gas production data. The Registry has been used in Alberta for over 10 years. On April 1, 2012 Saskatchewan went live on the Registry. The Petroleum industry sponsored and partially funded the Opportunity Assessment for Manitoba as it is believed there would be operational benefits to have 3 provinces utilizing the same software system.

In 2011/12, the section continued to expand the offering of information available on the internet. The section provided ongoing support and development for GIS map products, Petroleum website enhancements and the Manitoba Oil and Gas Well Information System (MOGWIS).

Accomplishments in 2011/12 include:

- Creation of e-mail notification to enable industry to report activity to the Branch
- Development of digital document management structure.
- Continued research into data standardization with other jurisdictions through the investigation of the use of the Alberta Registry;
- Continued support for the Petroleum Branch Manitoba Oil and Gas Well Information System
- Continued updating of Petroleum datasets for outside use
- Creation of the Petroleum GIS, which is approved by Manitoba education for Grade 10 Social studies
- Addition of Petroleum GIS lesson to website

Minister's and Director's Approvals

Under The Oil and Gas Act, the Minister and the Director of Petroleum have authority to issue orders relating to drilling, production, storage and transportation of oil and gas. The Minister has authority to make orders relating to well spacing, enhanced recovery, maximum production rates, seizure of wells and facilities and to enter into Unit Agreements on behalf of the Crown. The Lieutenant Governor in Council has delegated parts of this authority, under Order in Council 384/2001, to the Director where the circumstances are considered routine. The Director has authority to issue orders relating to salt water disposal, designation of field and pools, designation of new oil status and to affect the seizure of wells and facilities of a non-compliant operator pursuant to a Ministerial Seizure Order.

In 2011/12 the Minister made the following orders:

Missing Royalty Owner NW ¼ 26-8-28 W1	July 7, 2011	Magellan Resources Ltd.
Pipeline Construction Permit No. 2012-02	Aug. 6, 2011	Provident Energy Ltd.
Unit Agreement (Sinclair Unit No. 6)	Aug. 25, 2011	Tundra Oil & Gas Partnership
Pipeline Construction Permit No. 2011-03	Sept 12, 2011	Enbridge Pipelines (Virden) Ltd.
Unit Agreement (Sinclair Unit No. 7)	Oct.11, 2011	Tundra Oil & Gas Partnership
Pipeline Construction Permit No. 2011-05	Nov. 3, 2011	Penn West Exploration Ltd.
Seizure of Battery 3-12-9-28 W1	Nov. 9, 2011	Gale Force Petroleum Inc.
Pipeline Construction Permit No. 2011-04	Nov. 28, 2011	Enbridge Pipelines (Virden) Ltd.
Unit Agreement (Sinclair Unit No. 8)	Dec. 30, 2011	Tundra Oil & Gas Partnership
Pipeline Construction Permit No. 2012-01	Jan. 25, 2012	Tundra Energy Marketing Ltd.
Pipeline Operating Permit No. 2012-02	Feb 16, 2012	Enbridge Pipelines (Virden) Ltd.
Pipeline Operating Permit No. 2012-03	Mar. 23, 2012	Provident Energy Ltd.
Pipeline Operating Permit No. 2012-04	Mar. 6, 2012	Penn West Exploration Ltd.

In 2011/12, the Director of Petroleum made the following orders:

Salt Water Disposal No. 224	Apr. 8, 2011	Reliable Energy Ltd.
Salt Water Disposal No. 225	Jun. 1, 2011	Tundra Oil & Gas Partnership
Salt Water Disposal No. 226	Oct 3, 2011	IEL Enterprises Ltd.
Salt Water Disposal No. 227	Oct. 12, 2011	618555 Saskatchewan Ltd.

Salt Water Disposal No. 228	Oct 9, 2011	Tundra Oil & Gas Partnership
Salt Water Disposal No. 229	Dec. 1, 2011	Tundra Oil & Gas Partnership
Salt Water Disposal No. 230	Dec. 1, 2011	Surge Energy Inc.
Salt Water Disposal No. 231	Jan. 5, 2012	Reliable Energy Ltd.
Salt Water Disposal No. 232	Jan. 6, 2012	Penn West Petroleum Ltd.
Salt Water Disposal No. 233	Feb. 3, 2012	T. Bird Oil Ltd.
Salt Water Disposal No. 234	Mar.12, 2012	Tundra Oil & Gas Partnership

Petroleum Industry Overview :

	2010	2011
New wells drilled	510	578
Oil production	1,873,452 m^3 (11.8 million bbls)	2,359,246 m^3 (14.8 million bbls)
Value of oil sales ($ million)	$893	$1,360
Average selling price	$476.66/$m^3$($75.74/bbl)	$577.46 m^3($91.76/bbl)
Wells producing - December	3,163	3,393
Estimated Industry Expenditures ($ million)	$894	$1,228

More comprehensive information and historical statistics on Manitoba's petroleum industry are presented in the Oil Activity Review available from the Petroleum Branch.

18-5(c) Petroleum

Expenditures by Sub-Appropriation	Actual 2011/12 $	Estimate 2011/12 FTE	Estimate 2011/12 $	Variance Over (Under)	Expl. No.
Total Salaries & Employee Benefits	1,436	20.50	1,426	10	
Total Other Expenditures	411		348	63	
Total Expenditures	**1,847**	**20.50**	**1,774**	**73**	

BOARDS AND COMMISSIONS

OBJECTIVES

To provide for the resolution of disputes between surface rights holders, mineral rights, and oil and gas rights holders with respect to accessing minerals, oil and gas.

Mining Board

The Mining Board is established under the Mines and Minerals Act. The primary function of the Board is the arbitration of disputes between surface rights holders and mineral rights holders with respect to accessing of minerals other than oil and gas. The Board can also hear and resolve disputes between holders of mineral dispositions and between holders and officers of the Department.

No Board Orders were issued in 2011.

Surface Rights Board

The Surface Rights Act establishes a quasi-judicial process for resolving land access and development disputes between oil and gas development proponents and surface rights holders. The Act also establishes a Board to arbitrate and mediate disputes and establishes appropriate compensation for petroleum development activities. Land Management provides administrative support to the process and the Board.

Due to its quasi-judicial nature, the Board operates independently and is attached to the Department for administrative reasons only.

Highlights for 2011 include reviewing 37 parcels of land for annual compensation, one right-of-entry application, one surface lease and compensation application and one application of an expansion of existing value site. Other significant activities for the fiscal year include improving the administrative process and procedures for the Board activities, including public consultation and written comments from stakeholders.

	2008	2009	2010	2011
Signed Agreements for Surface Leases (fiscal year)	404	332	415	470
Total Number of Recorded Surface Leases	3815	4147	4562	5032
Review of Right of Way Applications	0	0	28	3
Review of Compensation Applications	0	0	0	3
Termination of Board Orders	0	0	0	0
Application for Abandonment Orders	1	0	0	0
Board Orders Issued	0	0	0	3
Mediation Reports	0	0	0	0

18-5(d) Boards and Commissions

Expenditures by Sub-Appropriation	Actual 2011/12 $	Estimate 2011/12 FTE	Estimate 2011/12 $	Variance Over (Under)	Expl. No.
Total Salaries and Employee Benefits	23		30	(7)	
Total Other Expenditures	11		16	(5)	
Total Expenditures	**34**		**46**	**(12)**	

MINERAL INDUSTRY SUPPORT PROGRAMS

The Mineral Industry Support Programs are delivered under Manitoba Geological Survey.

Mineral Exploration Assistance Program

The Mineral Exploration Assistance Program (MEAP) provides financial assistance to eligible companies or individuals who undertake mineral exploration in Manitoba. Established in the fall of 1995, MEAP was renewed for an additional three years starting with the April 2011 offering and will expire in 2013/2014. For the 2011 renewal, the program will provide a single offering each year with $1.5 million of assistance annually. The program was designed to increase exploration and stimulate activities that may lead to the development of new mines. Companies/individuals may qualify for 25% - 35% of eligible exploration expenditures up to a maximum of $200,000.00 per recipient, per fiscal year; depending on the area of exploration. A higher percentage of assistance is offered for projects undertaken in the Northern Superior region of the province, due to remoteness and limited infrastructure. MEAP has extended the higher percentage of assistance on eligible expenditures to include the Lynn Lake/Leaf Rapids areas.

Companies with approved projects under the April 2011 offering had until March 31, 2012 to complete their work. Twenty-one of the original 26 approved projects were completed.

Reviews, Audits and Inspections

To ensure accountability and integrity of the Program, the Department continued to conduct audits and site inspections following guidelines developed with the Provincial Internal Audit office. In the 2011/2012 fiscal year, Innovation, Energy & Mines and the Provincial Internal Audit Office decided to forego internal audits of the program for the year due to other priorities within Internal Audit and past history of administration of the program. Six site inspections for projects representing $458,970 or 30.6% of the allocated assistance have been completed.

Program Highlights from October 1995 to March 31, 2012

- 179 companies have participated under MEAP of which:
  - 137 companies are considered new to Manitoba.
  - 16 are major exploration companies, and
  - 163 are junior companies (note: a company is considered a major exploration company if its market capitalization is greater than $100 million).
- $28.9 million of assistance has been issued to 755 completed projects.
- $252.3 million in exploration expenses have been reported.
- Reported exploration expenditures under the Program indicate every $1 million in assistance paid generates $8.7 million in exploration expenditures.
- For every dollar of MEAP assistance, the Manitoba Bureau of Statistics estimates that there is $1.85 in taxes collected in Manitoba.

Mineral Exploration Assistance Program 2011 Status

Offering	*Applications Received*	Approved Applications	Proposed Exploration $ in 000's	Assistance $ Allocated in 000's	Projects Completed	Actual Exploration $ in 000's	Assistance $ Paid
11-04-01	26	26	24,248.4	1,500.0	21	26,194.9	1,316.4
TOTAL	**26**	**26**	**24,248.4**	**1,500.0**	**21**	**26,194.9**	**1,316.4**

Note: Projects approved under the April, 2011 offering have until June 15, 2012 to file final reports and make application for final payment

Results of Assistance by General Region of Exploration for 2011/2012

	Projects		Exploration $ in 000's		Assistance $ in 000's	
Far North	1	(3.8%)	$ 309.0	(1.2%)	$44.4	(3.4%)
Flin Flon/Snow Lake	8	(30.8%)	$7,017.7	(26.8%)	$516.0	(39.2%)
Hudson Bay Lowland	0	(0.0%)	$0.0	(0.0%)	$0.0	(0.0%)
Lynn Lake/Leaf Rapids	2	(7.7%)	$3,518.9	(13.4%)	$153.0	(11.6%)
Northern Superior	2	(7.7%)	$ 10,500.3	(40.1%)	$153.0	(11.6%)
SE Trans-Hudson Orogen	0	(0.0%)	$ 0.0	(0.0%)	$0.0	(0.0%)
Southeastern Manitoba	7	(26.9%)	$3,578.8	(13.7%)	$230.0	(17.5%)
South Central Manitoba	1	(3.8%)	$0.0	(0.0%)	$0.0	(0.0%)
Thompson Nickel Belt - Superior Boundary Zone	5	(19.2%)	$1,270.3	(4.8%)	$220.0	(16.7%)

Manitoba Prospectors Assistance Program

The Manitoba Prospectors Assistance Program (MPAP) offers grants to prospectors conducting exploration on either their own Manitoba properties or open Crown land. The Program is targeted at increasing mineral exploration in Manitoba to help replenish declining ore reserves. The Program is funded at $23,000 per year and allows individual prospectors to qualify for up to 50% of their prospecting expenditures incurred up to a maximum of $7,500 per prospector per year. The program also provides 80% of the cost of one return charter flight or $1,500.00 per year, whichever is less, for projects undertaken in more remote areas of the Province. The maximum assistance of $9,000.00 is available per applicant, per year.

In 2011/12 the program received 5 applications for grants; 5 prospecting projects were approved under the program and 3 were completed. The total amount of Program funds dispersed for 2011/2012 was $12,528.25.

Bill Hood	3,794.02
Ken Klyne	3,226.32
Harold Westdal	5,507.91
Total Funds Dispersed:	$12,528.25

Manitoba Potash Project

The Manitoba Potash Corporation (MPC) holds the development rights to known potash reserves in the Russell-Binscarth area of southwest Manitoba. MPC was created in 1986 as a joint venture between the province of Manitoba (49 per cent) and Canamax Resources Inc. (51 per cent). In 1990, Canamax sold its 51% interest in the potash project, to Potamine Potash Mining of Canada Inc. (Potamine), a subsidiary of Enterprise Miniere et Chimique (EMC) Group of France, In November 2006 BHP Billiton, one of the largest diversified mining companies in the world, purchased Potamine's share in the MPC.

BHP Billiton has completed an internal scoping study in 2010 on mine development of their Russell property in 2010. Their assessment indicates that a nominal 2 million tonne per year mine is technically feasible, but it faces significant technical and economic challenges. BHP Billiton is committed to ongoing evaluation of market conditions and opportunities as they arise that could improve the project economics. BHP continues to maintain the project and cover all carrying costs. Until the investment can demonstrate a positive return, there are no plans to progress the development of the project.

18-5(e) Mineral Industry Support Programs

Expenditures by Sub-Appropriation	Actual 2011/12 $	Estimate 2011/12 FTE	Estimate 2011/12 $	Variance Over (Under)	Expl. No.
Mineral Industry Support Programs					
- Mineral Exploration Assistance Program	1,474		1,500	(26)	
- Prospectors Assistance Program	13		23	(10)	
- Manitoba Potash Project	86		197	(111)	
Total Expenditures	**1,573**		**1,720**	**(147)**	

COSTS RELATED TO CAPITAL ASSETS

Commencing in 1999/2000, it is the policy of the Province of Manitoba to record in the accounts of the Province, the tangible capital assets owned and used by the Province along with appropriate amortization costs. The Provincial Comptroller has established standard asset classes, along with capitalization thresholds and corresponding amortization rates.

Consistent with this policy, the department records amortization of:

- the Enterprise System allocated to departments based on projected use;
- the amortization of other departmental and government assets; and
- the interest related to the assets.

18-6 Amortization and Other Costs Related to Capital Assets

Expenditures by Sub-Appropriation	Actual 2011/12 $	Estimate 2011/12 FTE	Estimate 2011/12 $	Variance Over (Under)	Expl. No.
(a) ENTERPRISE SYSTEM					
Amortization Expense	3,458		3,448	10	
Less: Recoverable from other appropriations	(3,458)		(3,448)	(10)	
(b) Amortization Expense	6,148		6,394	(246)	
(c) Interest Expense	2,329		3,871	(1,542)	*1*
Total Expenditures	**8,477**		**10,265**	**(1,788)**	

1. Interest rates lower than projected.

INNOVATION, ENERGY AND MINES

Reconciliation Statement

EXPENDITURE DETAILS	
2011/12 MAIN ESTIMATES	87,658
MAIN ESTIMATES AUTHORITY TRANSFERRED FROM:	
• **Enabling Appropriations**	
- ecoTrust Fund	656
- Internal Services Adjustment	940
2011/12 ESTIMATE	89,254

Innovation, Energy and Mines
Expenditure Summary
For Fiscal Year Ended March 31, 2012 (with comparative figures for the previous year)

Estimate 2011/12 $			Appropriation	Actual 2011/12 $	Actual 2010/11 $	Increase (Decrease) $	Explanation Number
	18-1		**Administration and Finance**				
37		(a)	Minister's Salary	33	37	(4)	
		(b)	Executive Support				
492			(1) Salaries and Employee Benefits	476	471	5	
73			(2) Other Expenditures	68	66	2	
150		(c)	Administration and Finance	148	149	(1)	
752			Total 18-1	725	723	2	
	18-2		**Energy Development Initiatives**				
		(a)	Energy Development Initiatives				
1,005			(1) Salaries and Employee Benefits	854	855	(1)	
1,450			(2) Other Expenditures	2,172	2,857	(685)	*1*
2,455			Total 18-2	3,026	3,712	(686)	
	18-3		**Science, Innovation and Business Development**				
		(a)	Science, Innovation and Business Development				
1,579			(1) Salaries and Employee Benefits	1,556	1,656	(100)	
613			(2) Other Expenditures	610	613	(3)	
13,300			(3) Manitoba Research and Innovation Fund	13,400	11,925	1,475	*2*
720			(4) Manitoba Centres of Excellence Fund	720	720	0	
(750)			(5) Less: Recoverable from Urban Development Initiatives	(750)	(750)	0	
6,003		(b)	Manitoba Health Research Council	6,003	6,003	0	
900		(c)	Industrial Technology Centre	900	900	0	
396		(d)	Manitoba Education, Research and Learning Information Networks	396	396	0	
22,761			Total 18-3	22,835	21,463	1,372	

Expenditure Summary

Estimate 2011/12 $		Appropriation	Actual 2011/12 $	Actual 2010/11 $	Increase (Decrease) $	Explanation Number
	18-4	**MB Information and Communication Technologies**				
	(a)	Business Transformation and Technology				
18,397		(1) Salaries and Employee Benefits	18,849	19,211	(362)	
76,935		(2) Other Expenditures	83,681	75,988	7,693	*3*
(54,951)	(b)	ICT Services Manitoba Recovery	(57,866)	(53,118)	(4,748)	*4*
	(c)	Legislative Building Information Systems				
1,010		(1) Salaries and Employee Benefits	1,019	1,032	(13)	
310		(2) Other Expenditures	266	278	(12)	
41,701		Total 18-4	45,949	43,391	2,558	
	18-5	**Mineral Resources**				
	(a)	Manitoba Geological Survey				
3,830		(1) Salaries and Employee Benefits	3,763	3,966	(203)	
2,107		(2) Other Expenditures	2,997	2,040	957	*5*
	(b)	Mines				
1,312		(1) Salaries and Employee Benefits	1,273	1,290	(17)	
531		(2) Other Expenditures	22,996	535	22,461	*6*
	(c)	Petroleum				
1,426		(1) Salaries and Employee Benefits	1,436	1,301	135	
348		(2) Other Expenditures	411	327	84	
	(d)	Boards and Commissions				
30		(1) Salaries and Employee Benefits	23	9	14	
16		(2) Other Expenditures	11	7	4	
	(e)	Mineral Industry Support Programs				
1,500		(1) Mineral Exploration Assistance Program	1,474	985	489	*7*
23		(2) Prospectors' Assistance Program	13	18	(5)	
197		(3) Manitoba Potash Project	86	78	8	
11,320		Total 18-5	34,483	10,556	(619)	

Expenditure Summary

Estimate 2011/12 $		Appropriation	Actual 2011/12 $	Actual 2010/11 $	Increase (Decrease) $	Explanation Number
	18-6	**Amortization and Other Costs Related to Capital Assets**				
	(a)	Enterprise System				
3,448		(1) Amortization	3,458	3,458		
(3,448)		(2) Less: Recoverable from other appropriations	(3,458)	(3,458)		
6,394	(b)	Amortization Expense	6,148	5,173	975	*8*
3,871	(c)	Interest Expense	2,329	2,484	(155)	
10,265		Total 18-6	8,477	7,657	820	
89,254		**TOTAL INNOVATION, ENERGY AND MINES**	115,495	87,502	27,993	

1. *Decreased Budgeting for Outcomes expenditures.*
2. *Increased research component of MRIF*
3. *Increased NetSet Loan provision,*
4. *Increased desktop recoveries due to new billing system.*
5. *Increased Aboriginal Consultations expenditures.*
6. *Environmental Liabilities*
7. *Increase in funding.*
8. *Increase in completed Capital Projects.*

Innovation, Energy and Mines
Revenue Summary by Source
For Fiscal Year Ended March 31, 2012 (with comparative figures for the previous year)

Actual 2010/11 $	Actual 2011/12 $	Increase (Decrease) $	Source	Actual 2011/12 $	Estimate 2011/12 $	Variance $	Explanation Number
			Current Operating Programs:				
			Taxation				
10,172	10,018	(154)	Oil and Natural Gas Tax	10,018	8,218	1,800	*1*
10,172	10,018	(154)	Sub-Total	10,018	7,676	1,800	
			Other Revenue				
21,395	35,740	14,345	Petroleum Royalties and Fees	35,740	18,263	17,477	*2*
4,287	5,358	1,071	Minerals Royalties and Fees	5,358	4,051	1,307	*3*
675	980	305	Sundry	980	1,359	(379)	*4*
26,357	42,078	15,721	Sub-Total	42,078	23,673	18,405	
36,529	**52,096**	**15,567**	**Total**	**52,096**	**31,891**	**20,205**	

Explanations:

Comparison to Previous Year

2. *Increased 2011/12 daily production and land sales.*
3. *Increase of quarry lease & royalties revenue*

Comparison Actual to Estimate

1. *Increased 2011/12 daily production and land sales.*
2. *Increased 2011/12 daily production and land sales.*
3. *Increase of quarry lease & royalties revenue*
4. *Decreased Desktop refresh revenue*

FIVE YEAR HISTORY

Innovation, Energy and Mines

Five-Year Expenditure and Staffing Summary by Appropriation ($000s)

For Five Years Ended March 31, 2012

	Actual/*Adjusted Expenditures									
	2007-2008		2008-2009		2009-2010		2010-2011		2011-2012	
	FTE	$	FTE	$	FTE	$	FTE	$	FTE	$
Administration and Finance	7.00	692	7.00	718	7.00	745	7.00	723	7.00	725
Energy Development Initiatives	11.00	2,790	11.00	3,396	10.00	2,623	10.00	3,712	11.00	3,026
Science, Innovation and Business Development	19.00	20,705	19.00	21,224	19.00	21,850	19.00	21,463	19.00	22,835
Business Transformation and Technology	221.72	42,477	221.72	43,285	218.72	44,285	217.72	43,391	217.72	45,949
Mineral Resources	101.60	10,736	101.60	11,041	101.60	11,175	101.60	10,556	103.60	34,483
Amortization and Other Costs Related to Capital Assets		19,932		6,969		6,817		7,657		8,477
TOTAL OPERATING	360.32	97,332	360.32	86,633	356.32	87,494	355.32	87,502	358.32	115,495
Expenditures Related to Capital Investment		8,735		8,099		8,618		4,766		4,342
TOTAL	360.32	106,067	360.32	94,732	356.32	96,112	355.32	92,268	358.32	119,837

* - Adjusted figures reflect historical data on a comparable basis in those appropriations affected by reorganizations during the five years

INNOVATION, ENERGY AND MINES
2011/12 Annual Report Performance Measurements

The following section provides information on key performance measures for the department for the 2011-12 reporting year. This is the seventh year in which all Government of Manitoba departments have included a Performance Measurement section, in a standardized format, in their Annual Reports.

Performance indicators in departmental Annual Reports are intended to complement financial results and provide Manitobans with meaningful and useful information about government activities, and their impact on the province and its citizens.

For more information on performance reporting and the Manitoba government, visit www.manitoba.ca/performance.

Your comments on performance measures are valuable to us. You can send comments or questions to mbperformance@gov.mb.ca.

Innovation, Energy and Mines 2011/12 Performance Measures Document for inclusion in the 2011/12 Annual Report

Priority: Create an environment conducive to the development of clean energy technologies and capitalize on energy opportunities for Manitobans.

(A) What is being measured and using what indicator?	(B) Why is it important to measure this?	(C) Where are we starting from?	(D) What is the 2011/12 result or most recent available data?	(E) What is the trend over time?	(F) Comments/recent actions/report links
Developing alternative energy sources for Manitoba by. 1.Measuring Wind Energy Production and the level of investment it is attracting in Manitoba, and 2.Measuring the total amount of biodiesel consumption in Manitoba	Measuring alternative energy resources not only demonstrates the importance of diversifying the province's reliance on a single energy source, but it also recognizes the importance of developing clean, renewable and sustainable energy resources.	Wind production prior to 2005 was zero megawatts. In April 2005, St. Leon had the first Wind farm in Manitoba, which was built with a $210 million private capital investment.[1]	99.9MW of wind generation was available at St. Leon with power being sold to Manitoba Hydro. Pattern Energy completed construction on the 138 MW St. Joseph Wind Project. Total capital cost was $345 million and the company will pay local landholders ~$38 million over the life of the project. In 2012 Algonquin Power and Utilities Corp expanded the St. Leon wind farm by adding 10 additional turbines.	By the end of 2012, ~258MW of wind generation is operational in Manitoba.	Six additional sites have been monitored to support the development of a Manitoba profile. The information is being used for communities and developers to further understand Manitoba's wind resource. Note this initiative was discontinued part way through the program due to BFO funding constraints. For more information, please see the press releases and reports below. Manitoba's Largest Wind Farm Powers Up http://news.gov.mb.ca/news/index.html?archive=&item=10621 MB Hydro progresses in evaluation of wind energy proposals. http://www.hydro.mb.ca/news/releases/news_08_03_31.html Province, Manitoba Hydro Unveil Expression of Interest To Develop 1,000 Megawatts of Wind Over the Next Decade – November 2005

[1]The St. Leon turbine is the first of 12 test wind turbines operational as of April 28, 2005, under the federal government's Canadian Renewable and Conservation Expense program which will be used to verify wind resources. Following a successful test phase, AirSource Power Fund will oversee the construction of a total of 63 wind-turbine generators, making up the 99-megawatt (MW) project covering two municipalities in southern Manitoba

			The $31 million expansion increased the size of the wind farm to 120 MW. The 258 MW of wind in Manitoba represents $586 million in capital investment since 2006.		http://www.gov.mb.ca/chc/press/top/2005/11/2005-11-21-01.html Southern Manitoba Farmers Set To Harvest Province's First Wind Crop – April 2005 http://www.gov.mb.ca/chc/press/top/2005/04/2005-04-28-04.html For more information about Wind Energy visit the Canadian Wind Energy Association website http://www.canwea.ca/ Province of Manitoba Climate Change Action Plan 2002 http://www.gov.mb.ca/est/climatechange/pdfs/final-mccap-sep-16-02.pdf
		2. biodiesel consumption in Manitoba 2009/10 – 100,000 litres	2. biodiesel consumption in Manitoba 2010 and 2011 combined = 47.6 million litres .	Use of Manitoba and not-Manitoba sources facilitated timely achievement of target.	

Priority: Improve public services by engaging Departmental service providers in the pursuit of continuous improvement through the examination of their business processes to develop and deliver more effective and efficient services while maximizing Manitoba's benefits from Information and Communication Technology investments.

What is being measured and using what indicator?	Why is it important to measure this?	Where are we starting from?	What is the 2011/12 result or most recent available data?	What is the trend over time?	Comments/recent actions/report links
Cost to operate and maintain solutions is measured by the cost of delivery per solution.	Lower operating costs enables lower government program delivery costs and increases financial capacity for new solution delivery in support of modernizing government.	Base-line year is 2009/2010 for Imaging Services. 2010/2011: Printer Refresh project reduced the number of devices in the enterprise by 1308 with annual cost savings of $220.0.	2011/12 The Printer Refresh was completed in August 2011. It reduced the number of devices in the enterprise from 5500 to 3500 with annual cost saving of $312.0. When including savings from energy and paper costs, the annual cost savings are $398.0.	2011/12 BTT is managing imaging services on an ongoing basis to ensure cost savings going forward. To do so, BTT oversees all imaging device procurement. The number of imaging devices in the enterprise is increasing proportionately to the increase in the number of PCs.	Reductions in the number of imaging devices in the enterprise that utilize consumable items (paper, toner, etc) are expected to continue.
		Base-line year for Server Consolidation is 2010/2011. 2010/2011: The Server Consolidation project – server number reduced from 356 to 28 in Data Centre 3.	2011/12: The Server Consolidation project – number of servers reduced from 356 to 28 in Data Centre 3. Project completed in March 2011 – final numbers reported above.	The Server Consolidation project will reduce operations costs, service launch costs, and reduce the time period for the launch of new services and applications.	The Server Consolidation Project will reduce operations costs, service launch costs, and reduce the time period for the launch of new services and applications.

Incremental number of communities with access to broadband or high-speed network services and the change in those communities. Number of public sector organizations, including federal that subscribe to Manitoba Network Services.	To ensure IEM is fulfilling its mandate to improve access to internet and other Broadband Services throughout Manitoba.	Access to Broadband was limited in Manitoba and did not exist in rural and northern communities prior to September 2001.	Estimated community connectivity by year: 2004 104 2005 132 2006 200 2007 230 2008 255 2009 357 (356) 2010 360 (360) 2011 360 2012 415 Target 465 2011/12 showed an increase of 13.3% or 55 additional communities from the previous year of 360 communities.	Positive and increasing however connecting remaining communities will be challenging due to the high cost of connecting remote communities and the low revenue potential. Some communities listed as connected are under served due to a lack of network capacity or the high cost of services.	**Note:** Approximately 66 new Manitoba communities were connected by June 30, 2012 from the 360 communities already connected through Industry Canada's Broadband Canada Program. The numbers listed here are based NetSet and BCN network extensions funded in part by Industry Canada. Industry Canada uses the number of households served as their unit of measure. Manitoba uses communities. The 66 communities listed therefore is based on our conversion from Industry Canada's metrics to Manitoba's. Numbers are approximate but reasonable. For more information, please see the documents below. This measure was reported on page 46 of *Reporting to Manitobans on Performance 2005 Discussion Document*, which is available at http://www.gov.mb.ca/finance/pdf/performance.pdf Industry Canada Broadband Program: http://www.ic.gc.ca/eic/site/719.nsf/eng/home

Priority: Significantly improve Manitoba's scientific research capacity and create an atmosphere of innovation to drive economic growth.

What is being measured and using what indicator?	Why is it important to measure this?	Where are we starting from?	What is the 2011/12 result or most recent available data?	What is the trend over time?	Comments/recent actions/report links
Research Competitiveness as measured by success in national competitions. 1) Manitoba expenditures on matching federal R&D programs (i.e. CFI, GC, NCE and RPP) 2) Manitoba provincial ranking re: CFI awards (% of Canadian total); and, by the indication of the capacity and competitiveness of Manitoba as a location to undertake leading research in areas of strength.	A key determinant of the province's ability to attract investment and highly qualified personnel for research-based businesses and research institutions	1) MB Expenditures 2003/04 - $6,941,000 2004/05 - $5,607,000 2005/06 - $6,424,000 2006/07 - $4,238,000 2007/08 - $6,210,000 2008/09 - $5,559,000 2009/10 - $5,613,000 2010/11 - $6,509,000 2011/12 - $8,116,000 2) MB Provincial Ranking (Cumulative 98/99 – 2011/12) 1.62% - Rank 7th	There were 13 successful 2011/12 research projects in Manitoba under the federal Canada Foundation for Innovation (CFI) Leaders' Opportunity Fund (LOF) initiative. These projects, bring an investment of up to $5,068,267 to Manitoba's universities for equipment and research infrastructure, operating and maintenance of the equipment, and help Manitoba's institutions to recruit and retain the best faculty.	The level of funding has been steady over time with year to year variations.	Manitoba Innovation Framework http://www.gov.mb.ca/est/innovation/index.html The Framework is a long-term strategic plan, initiated by the Manitoba Government in 2002.03, that supports knowledge based economic development through research, innovation and technology development. The document sets out a target of doubling Manitoba Government research investments to $40 million annually by 2010. The MRIF also works with national funding organizations that provide matching funds to Manitoba. For more information, please view the websites below Canadian Foundation for Innovation (CFI) http://www.innovation.ca/index.cfm Genome Canada http://www.genomecanada.ca/ Canada and Canadian Institutes for Health Research (Regional Partnership Program.) http://www.cihr-irsc.gc.ca/

Priority: Increase Manitoba's geological knowledge base; expand Manitoba's mineral investment opportunities and realize Manitoba's oil and gas exploration and development potential

What is being measured and using what indicator?	Why is it important to measure this?	Where are we starting from?	What is the 2011/12 result or most recent available data?	What is the trend over time?	Comments/recent actions/report links
Annual exploration expenditures by the minerals and petroleum exploration industries are the most direct indicator[2] of the level of mineral and petroleum exploration activity in the Province..	One of the primary roles of the Mineral Resources Division is to promote exploration investment in Manitoba.	2002 Mineral exploration (dollar value millions) of exploration in Manitoba (annual expenditure change): $29.8 (up 3.8%)	Mineral exploration and deposit appraisal ($ million) 2008: $152.1 2009: $97.8 2010: $83.5 2011: $110.5 (preliminary estimate) 2012: $125.6 (spending intentions)	Mineral exploration and deposit appraisal (dollar value millions) of exploration in Manitoba (annual expenditure change): 2002: $29.8 (up 3.8%) 2003: $27.2 (down 7.0%) 2004: $36.0 (up 32.4%) 2005: $52.9 (up 46.9%) 2006: $52.9 (unchanged) 2007: $102.6 (up 94.0%) 2008: $152.1 (up 48.2%) 2009: $97.8 (down 35.7%) 2010: $83.5 (down 14.6%) 2011 $110.5 (preliminary) (up 32.3%)	Natural Resources Canada (NRCan) reports mineral exploration and deposit appraisal statistics for all provinces and territories at http://mmsd.mms.nrcan.gc.ca/stat-stat/expl-expl/sta-sta-eng.aspx High base metal prices led to a record $152.1 million in exploration expenditures in Manitoba in 2008. Exploration dropped during the global economic turndown and exploration expenditure increases in Manitoba in 2009 - 2011 have not kept pace with overall increases in Canadian exploration expenditures. As a result, Manitoba's share of Canadian mineral exploration which increased to 5.0% in 2008 and has dropped over the past three years to 3.0% in 2011.

[2] Mineral exploration expenditure statistics are public (compiled by Natural Resources Canada and Canadian Association of Petroleum Producers), unbiased, accurate, and available going back many years. They can be translated into jobs and tax revenue using information supplied by the Manitoba Bureau of Statistics. These numbers are a roll-up type indicator that reflects not only the impacts of government policy and programs, but also external factors. They are strongly influenced by commodity prices, projected worldwide supply and demand, and even weather (e.g., warm winters—and poor ice conditions—such as those in 2005-06 do not allow companies to conduct a full winter exploration program). Accordingly, such indicators cannot be viewed in isolation of worldwide trends or local developments. They are not influenced solely by government policy.

		2002 Petroleum exploration and development capital expenditures (dollar value millions) in Manitoba and millions and annual expenditure change: $56.5 (0.38%).	Petroleum exploration and development costs: 2008: $255 million on total expenditures of $509 million; 2009 estimate: $267 million on total expenditures of $482 million 2010 estimate: $977million of total expenditures $1.081 billion 2011 estimate: $970 million on total expenditures of $1.228 billion *CAPP 2011 figures not available	Petroleum exploration and development capital expenditures (dollar value millions) in Manitoba (annual expenditure change): 2002: $56.5 (up 38.8%) 2003: $51.8 (down 8.3%) 2004: $64.5 (up 24.5%) 2005: $126.9 (up 96.7%) 2006: $223.2 (up 75.9%) 2007: $196.7 (down 11.9%) 2008: $255.0 (up 29.6%) 2009: $267.0 (up 4.71%) 2010: $851 (up 318%) 2011: $977 (estimate up 14.8%) Continuing high oil prices, ongoing development of Sinclair oil field and the success of new horizontal well completion technology in the Waskada and Manson areas have resulted in an increase in exploration and development expenditures in 2011.	Canadian Association of Petroleum Producers (CAPP) captures and compiles oil industry WCSB exploration and development expenditures by province. The expenditures exclude oil sands projects. Over the past 3 years, CAPP exploration and development expenditures have averaged 79.5% of total oil industry expenditures in Manitoba as estimated by the Department. Projections for 2011 are not available from CAPP. For 2011, the Department estimates total oil industry expenditures of $1.23 billion and exploration and development expenditures are estimated at $977 million (49.6% of Dept estimate).

The Public Interest Disclosure (Whistleblower Protection) Act

The Public Interest Disclosure (Whistleblower Protection) Act came into effect in April 2007. This law gives employees a clear process for disclosing concerns about significant and serious matters (wrongdoing) in the Manitoba public service, and strengthens protection from reprisal. The Act builds on protections already in place under other statutes, as well as collective bargaining rights, policies, practices and processes in the Manitoba public service.

Wrongdoing under the Act may be: contravention of federal or provincial legislation; an act or omission that endangers public safety, public health or the environment; gross mismanagement; or, knowingly directing or counselling a person to commit a wrongdoing. The Act is not intended to deal with routine operational or administrative matters.

A disclosure made by an employee in good faith, in accordance with the Act, and with a reasonable belief that wrongdoing has been or is about to be committed is considered to be a disclosure under the Act, whether or not the subject matter constitutes wrongdoing. All disclosures receive careful and thorough review to determine if action is required under the Act, and must be reported in a department's annual report in accordance with Section 18 of the Act.

Information Required Annually (per Section 18 of The Act)	**Fiscal Year 2011 – 2012**
The number of disclosures received, and the number acted on and not acted on. *Subsection 18(2)(a)*	**NIL**
The number of investigations commenced as a result of a disclosure. *Subsection 18(2)(b)*	**NIL**
In the case of an investigation that results in a finding of wrongdoing, a description of the wrongdoing and any recommendations or corrective actions taken in relation to the wrongdoing, or the reasons why no corrective action was taken. *Subsection 18(2)(c)*	**NIL**

PART B - CAPITAL INVESTMENT

Capital Investment is provided in the Estimates of Expenditures under Part B. For the year ended March 31, 2012, the department's capital authority provided for the acquisition, development and enhancement of government's information communication and technology. Support for internal reform initiatives involving the use of information technology in the delivery of government's services are reported separately.

Part B - CAPITAL INVESTMENT

Expenditures by Sub-Appropriation	Actual 2011/12 $	Estimate 2011/12 $	Variance Over (Under)	Expl. No.
B.6(a)(1) – Enterprise System	1,504	1,626	(122)	
B.6(a) (2) – Other Information Technology	867	844	23	
B.6(a) (3) – Corporate Information Technology Projects	1,484	1,872	(388)	
Total Capital Investment	**3,855**	**4,342**	**(487)**	

APPENDIX A

ASSOCIATED AGENCIES, BOARDS, COMMISSIONS and COUNCILS

ECONOMIC INNOVATION TECHNOLOGY COUNCIL

The Economic Innovation and Technology Council (EITC) acts as a catalyst in establishing partnerships and alliances for increased economic development through innovation. EITC tables its annual report under separate cover with the Manitoba Legislature.

INDUSTRIAL TECHNOLOGY CENTRE

The Industrial Technology Centre (ITC) is a special operating agency of the Department of Innovation, Energy and Mines. The Department supports ITC's contribution to economic development activities in Manitoba via an Economic Development Contribution Agreement (a performance contract). ITC provides a wide range of technical services in support of technology based economic development in Manitoba. ITC tables its annual report under separate cover with the Manitoba Legislature.

MANITOBA EDUCATION, RESEARCH AND LEARNING INFORMATION NETWORKS

The Manitoba Education, Research and Learning Information Networks (MERLIN), is a special operating agency of the Department of Innovation, Energy and Mines. MERLIN tables its annual report under separate cover with the Manitoba Legislature.

MANITOBA GAMING CONTROL COMMISSION

The Manitoba Gaming Control Commission is the primary regulatory body responsible to ensure that gaming activities are conducted with honesty, integrity and in the public interest. The Manitoba Gaming Control Commission tables its annual report under separate cover with the Manitoba Legislature.

MANITOBA HEALTH RESEARCH COUNCIL

The Manitoba Health Research Council (MHRC) provides funding for health research initiatives. The Manitoba Health Research Council tables its annual report under separate cover with the Manitoba Legislature.

MINING BOARD

The board arbitrates disputes with respect to accessing of minerals other than oil and gas. The board can hear and resolve dispute between holders of mineral dispositions and between holders and officers of the Departments. The board can also advise on matters relating to the pooling of mineral operations and to the designation of land as limited use land.

SURFACE RIGHTS BOARD

The Surface Rights Act establishes a Quasi-judicial board to administer and enforce the Surface Rights Act. Responsible for resolving land access and development disputes between oil and gas development proponents and surface rights holders. The Board also arbitrates and mediates disputes and establishes appropriate compensation for petroleum activities.

APPENDIX B

FINANCIAL INFORMATION

Innovation, Energy and Mines
Summary of Business Assistance
2011/2012 Fiscal Year

MANITOBA CENTRES OF EXCELLENCE FUND	**720,000**
MANITOBA RESEARCH AND INNOVATION FUND	**13,400,000**
LESS: RECOVERABLE FROM URBAN DEVELOPMENT	**(750,000)**
TRANSFER PAYMENTS	**7,298,400**
MINERAL INDUSTRY SUPPORT PROGRAMS:	
Mineral Exploration Assistance Program	**1,474,182**
Manitoba Prospectors' Assistance Program	**12,528**
	$22,155,100

APPENDIX C

FINANCIAL INFORMATION

Innovation, Energy & Mines
List of Business Assistance
2011-2012 Fiscal Year

MANITOBA PROSPECTORS' ASSISTANCE PROGRAM

Bill Hood	3,794
Ken Klyne	3,226
Harold Westdal	5,508
Total Funds Dispersed:	$12,528

MINERAL EXPLORATION ASSISTANCE PROGRAM

5918139 Manitoba Inc.	76,495
7781768 Canada Ltd.	57,945
ALTO VENTURES LTD	76,495
Alexis Minerals Corporation	76,495
Auriga Gold Corp.	63,270
Bison Gold Resources Inc.	76,495
Callinan Mines Limited	65,360
Canadian Star Minerals Limited	29,587
Central Consolidated Resources Inc.	54,380
Copper Reef Mining Corporation	76,495
Eagleridge Minerals Corp.	31,390
Halo Resources Ltd.	76,495
Harley Davy	14,122
Hudson Bay Exploration and Development Company Limited	76,495
Manitor Minerals Inc.	44,348
Mustang Minerals Corp.	76,495
NORCANGEO LTD	9,495
Prophecy Resources Corp.	76,495
QMC Quantum Minerals Corp.	76,495
Rockcliff Resources Inc.	76,495
Rolling Rock Resources Corporation	76,495
Strider Resources Limited	31,883
StrikePoint Gold Inc.	47,455
VMS Ventures Inc.(now HudBay)	36,275
Wildcat Exploration Ltd.	70,732
	$ 1,474,182